University of Alberta

LEARNER IDENTIFIED CHARACTERISTICS OF QUALITY LEARNING EXPERIENCES USING THE TELEWRITER

by

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©

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THE UNDERSIGNED CERTIFY THAT THEY HAVE READ, AND RECOMMEND TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH FOR ACCEPTANCE, A THESIS

ENTITLED **LEARNER IDENTIFIED CHARACTERISTICS OF QUALITY LEARNING EXPERIENCES USING THE TELEWRITER**

SUBMITTED BY **ROGER MOORE**

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DEGREE OF MASTER OF EDUCATION IN ADULT AND HIGHER EDUCATION.

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Dedication

This study is dedicated to my partner and friend, Sherry, and our two sons, Kristopher and Joel. These three people gave me time and support for the completion of this study.

Abstract

Distance education has been more discussed and developed as the methods of delivery have expanded. Since distance education is focused on the learner, research in distance education should also be focused on the learner. This study interviewed ten learners, who were using the Telewriter as the method of delivery of their courses, to find the characteristics they felt made their courses a quality learning experience for them.

Data were collected using a demographic questionnaire, individual interviews, and small group interviews. Throughout the study, the researcher also kept fieldnotes. Data were analyzed according to learner-identified areas or themes regarding their learning experiences. These included the diversity of learners' experiences, the learner's commitment to learning, and the learners' adaptability to this form of learning.

The learner identified characteristics of quality learning experiences using the Telewriter grouped into the following categories: the course, the physical setting, the method of delivery, the instruction and learner support. In addition, learners were asked to suggest changes to their learning situation that would make the experience better for them. Those changes included modifications of the present Telewriter situations, the use of different methods of delivery, and more choices for the learner.

From the data collected from the learners in this study, implications are given for distance education learners, for delivering institutions and for distance education instructors. In addition, suggestions are made for further research possibilities.

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Chapter I Overview of the Problem

Introduction

Being involved in adult education in Alberta and the delivery of that education through distance education has caused me to reflect on distance education (D.E.) [or distance learning (D.L.)] and its practice. Also, in recent years, distance education, in its many forms (and definitions), has been held up as an answer to many of education's problems (real and perceived). Although distance education has been used in the past, now as technology is being developed and the costs decrease, greater numbers of institutions are using this technology to deliver programs to people who otherwise may not be able to have the program of their choice. In distance education, as in all education, there seems to be an emphasis on making the process learner centered.

If we are indeed to be learner-centered and want to produce a quality learning experience for the learner, we must keep the focus on the learner. In view of this, we must consider what the learners' view of quality is in the learning situation. More specifically, we must obtain a better sense of what learners consider are characteristics of quality in distance education and how they see the institution and themselves trying to create a better quality learning experience.

In 1994, Alberta Advanced Education and Career Development produced New Directions for Adult Learning in Alberta which laid out the guidelines based on Albertans' views for the future of adult education in Alberta. The document's central theme is that the learner must be the focus of Alberta's adult education

system and that the system must be designed to meet the needs of the adult learner as well as other Albertans' needs. In order to accomplish these needs, four goals were laid out. The four goals of Alberta's Adult Learning System are to increase the following:

> - accessibility - the system will increase access for motivated Albertans to a diverse range of quality learning opportunities,
> - cost-effectiveness - the system will provide quality learning opportunities to the greatest number of Albertans at the lowest possible cost,
> - accountability - the system will increase its accountability to Albertans for the results of publicly funded learning opportunities, and
> - responsiveness - the system will increase its responsiveness to the needs of the individual learner and to the social, economic and cultural needs of the province (p. 7).

Within these goals, publicly funded institutions, private institutions, private agencies and individuals are being asked to provide high quality, cost effective learning opportunities for Albertans.

As part of this delivery, and in most situations as described above, the term "quality" appears. In most instances, the term quality focuses on the ideas of quality from the program developers' or administrators' viewpoints. If we are indeed to be learner-centered, then we must keep the focus on the learner (as proposed in the document Vision for Change (1995)) regarding distance education in Alberta.

In view of these documents and the general view of all involved in distance education, we must consider the learners' view of quality in the learning situation. More specifically, we must obtain a better sense of what learners consider are characteristics of quality in distance education and this is what this research has attempted to do.

Research Problem

The literature on distance education appeared to cover mainly studies that check learners' achievement, and that achievement is usually compared to "traditional" means of delivery. Some literature looked to define the typical distance education learner and as Speth (1991) suggests "the literature spends an inordinate amount of attention trying to construct a profile of the typical learner" (p. 22). This research is usually done on large numbers of learners and tends to cover or mask the variability and specifics of individual learners. It seems that the views of learners then become generalized and overly simplified. Threlkred & Brzoska (1994) suggest that "individual differences, and their impact on the learning process may prove more fruitful" (p. 49) than the generalizations. Speth, Poggio & Glasnapp (1991, cited in Willis 1994) regret that there was a lack of research regarding individual learners and their peculiarities.

In order to obtain information from the individual learners themselves, the following research question was developed: **What are the learner identified characteristics of quality learning using the Telewriter?** From this overall question, three sub-questions were addressed which are the following:

- What are the learner identified positive and negative experiences doing distance learning using the Telewriter?
- What are the learners identified characteristics of quality learning experiences in distance education using the Telewriter?
- What suggestions do the learners have that they feel would make their learning experiences of better quality?

Statement of Significance

In surveying the literature on distance education, it seemed that there were some studies on the characteristics that make distance education courses of quality, but there was little research on how learners believed institutions and the learners themselves can help create a learning experience of higher quality.

The purpose of this study was to systematically explore the characteristics of a quality learning experience as identified by the learners. It also considered the learners' ideas on what the delivering institution and the learner can do to make the learning of better quality. It is hoped that the findings of this study will help planners, instructors, course developers, support staff, and the learners create learning experiences of better quality.

Recently distance education in all its variations has come to the forefront as a mode of delivering education. This has come about due to a variety of reasons, such as rapid advances in technologies and communications links, the need to provide courses and programs to potential learners who do not have access to regular classroom settings, and shrinking budgets both for institutions and for learners to access education. Potential students also have other issues, which may keep them out of the traditional classroom such as family, work, and/or community commitments. Distance education for these people is an option.

Assumptions

Assumptions are statements that are taken to be true but are not actually verified. In this study, it was assumed that learners would be able to reflect on their past distance education experiences and would be able to explain their thoughts and feelings accurately. It was assumed that learners, in the process of learning, grow and will critically assess their learning. In addition, it was assumed

learners entering a course have sufficient background to be able to express what characteristics they want from the delivering institution and themselves in order to have a quality learning experience.

Limitations

Limitations refer to the limiting items or possible problems with the research. The researcher may have a variety of prejudices and biases. There may have also been a limit on the amount of information learners were able to supply in the interview process due to their limited ability to recall and explain. As well, in the focus groups the ability of the facilitator and the limited ability of participants to express their thoughts in a group may have limited the information gathered.

Delimitations

Delimitations means defining the boundaries of the study, what will be excluded or not dealt with. There was a small number of learners involved in the research so the data do not represent all distance learners at the sites or methods of delivery involved. The small number of participants was used with the intent of obtaining a depth of information rather than a large amount of surface information.

A second delimitation was that the results from this small number might not be generalizable to other groups of distance learners due to different location, methods of delivery or a variety of other factors.

Organization of Thesis

This thesis is organized into five chapters. In Chapter One the background and setting of the study is described as well as the problem, its significance, assumptions and factors limiting and delimiting the study.

Chapter Two provides a review of the literature. As well as focusing on the characteristics of a quality learning experience in distance education and the strategies learners use to make their learning of higher quality, the background and context of distance education was reviewed.

Chapter Three outlines the design of the study as well as the qualitative methodologies applied to the study.

Chapter Four presents the data, its analysis and findings emerging from the data analysis.

Lastly, Chapter Five presents the summary, implications for practice and recommendations of this study.

Chapter II Review of the Literature

Introduction

This literature review is intended to give a general background to distance education and more specifically to the research question, which is the following:

What are the learner identified characteristics of quality learning experiences using the Telewriter?

The literature review flows from general to specific. The areas covered begin with education and the teaching-learning process, which includes the purpose and goals of education, ideas about teaching and learning, as well as models of learning. The next area covered is distance education, with definitions, government publications, and the relevant research that has been done. Next, distance education students' needs are explored along with strategies students use to fulfill those needs.

Adult Education and the Teaching-Learning Process

The literature on education and the teaching learning process considers what has been written in terms of the purposes and goals of education, the concept of teaching-learning and adult learning principles. The focus of the literature review is on adults although many of the ideas and models are similar across age groups.

Purposes and Goals of Adult Education

Many authors talk about the purpose and goals of education but these discussions are usually specific to various topics although there are some discussions that are more general. One general view of education is presented here as well as a government view of what adult education should be in Alberta.

The purposes of education according to Caffarella (1994) are the following:

- to encourage continuous growth and development of individuals,
- to assist people in responding to practical problems and issues of adult life,
- to prepare people for current and future work opportunities
- to assist organizations on achieving desired results, and adaptations to change, and
- to provide opportunities to examine community and social issues (p. 2).

Many other authors use similar ideas but change the emphasis. In terms of government publications, Alberta Advanced Education and Career Development (1994) produced New Directions for Adult Learning in Alberta which laid out guidelines based on Albertans' views for the future of adult education in Alberta. The document's central theme is that the learner must be the focus of Alberta's adult education system and that the system must be designed to meet the needs of that adult learner, and as well as other Albertans' needs. In order to accomplish these needs, four goals were laid out. The four goals of Alberta's Adult Learning System (presented in Chapter One) are to increase accessibility, cost-effectiveness, accountability, and responsiveness. Within these goals, publicly funded institutions, private institutions, private agencies and individuals are being asked to provide high quality, cost effective learning opportunities for Albertans.

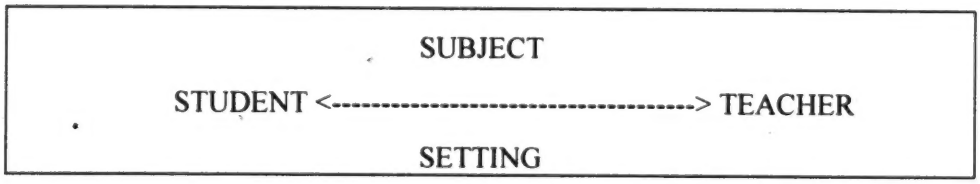
These two examples give a sense of the literature in the area of purpose and goals of education in a general sense. Other literature looks more specifically in the processes involved in education.

Concept of Teaching and Learning

In considering the literature on teaching and learning, distinctions have been made in the literature between teaching and learning. One model of teaching is considered along with a model of learning and a set of learning principles is presented.

Teaching has been designed as an interaction between a learner and a teacher with other influences operating. Davis (1993) uses this definition of teaching in his discussion of teaching at a college level, which includes a model developed earlier by Pfnister (1963) which is as follows:

Figure 1: Pfnister's Model of Teaching



The model is described in Pfnister's (1963) words as "the interaction of a student and a teacher over a subject within a setting." The model is considered to show a relatively "traditional" view of teaching, which involves a setting. In the later discussion of distance education, the concept of setting needs to be modified.

Other authors such as Wittrock (1978) focus on the learning and suggest "learning is an internal process within the person" (p. 15). Others such as Schmeck (1988) define learning in other ways. He suggested that the learners themselves would define learning as a retention of knowledge or as an "interpretative process aimed at understanding their reality" (p. 14). A more

behaviorist definition was also presented as an "observable change in a person's reaction to an equally observable situation or where the nervous system has been transformed by its own activity" (p. 16). Still others such as Saljo (1979) researched student's conceptions of learning and identified five qualitative different conceptions. Saljo's Levels 1, 2 and 3 are concerned with memorization, reproducing information and using algorithms to solve problems. In contrast, levels 4 and 5 are concerned with constructing meaning.

Tough (1979) found that people gave two main reasons for wanting to learn: to get ahead in a career and to get out of the house. When the research went deeper, Tough found adults' reasons for learning were to do the following:

- obtain certain pleasures or satisfactions,
- increase self-esteem,
- please and impress others, and
- acquire necessary knowledge and skills for vocational and professional advancement.

Other researchers such as Waldron & Moore (1991) found adults did not want to or were not able to learn because of lack of time, money and/or opportunity but deeper in-depth study revealed level of anxiety, self concept, fear of failure and memories of previous learning experiences, which in many cases were unpleasant, as reasons for not wanting to learn. From the concept of teaching and learning, we move to the consideration of adult learning principles.

Adult Learning Principles

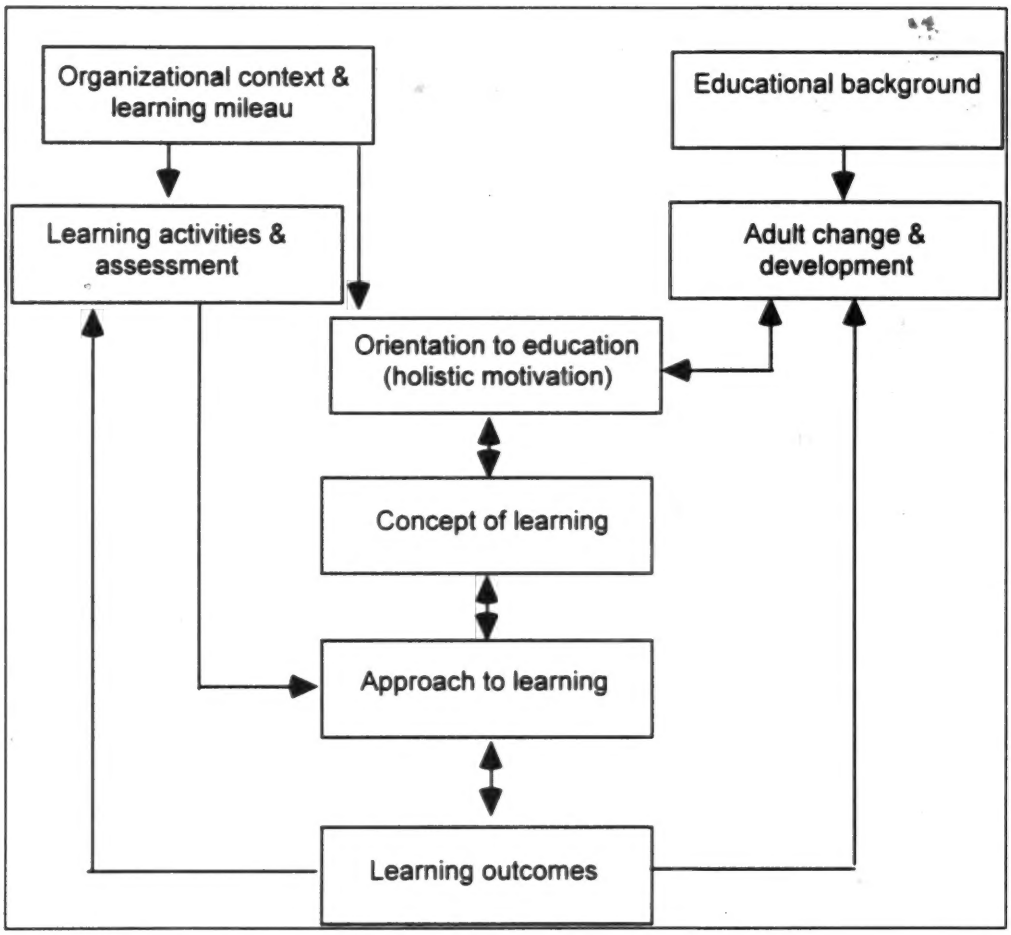
Many authors (Knowles, 1980, Brookfield, 1986 and Cross, 1980) have discussed adult learning principles and each of the authors has their own way of expressing the principles but it seems many of the principles are similar. For this

discussion, Lawler's (1991) nine adult learning principles will be used which are the following:

1. Adult education requires a social climate of respect.
2. A collaborative mode of learning is central to adult education.
3. Adult education includes and builds on the experience of the participant.
4. Adult education fosters critical reflective thinking.
5. Problem posing and problem solving are fundamental aspects of adult education.
6. Learning for action is valued in adult education.
7. Adult education is best facilitated in a participative environment.
8. Adult education empowers the participant.
9. Self-directed learning is encouraged and enhanced in adult education (p. 61-64).

These adult learning principles, as well as the ideas of teaching and learning have been put together by authors to develop general models of learning. These specific illustrations of learning have lead some authors such as Morgan (1995) to develop one such model of learning (p. 62).

Figure 2: Morgan's Model of Learning



In most, if not all models, there seems to be a direct connection between teaching and learning (as in Morgan's model) but some authors such as developmental psychologists Piaget (1963) and Vygotsky (1978) set the precedent for questioning whether or not there is a direct link between teaching and learning and whether or not that link is responsible for student learning. Authors such as Woolfolk (1993), Reigeluth (1989), Dick (1991), Carroll (1990) and Bednar et al. (1992) suggest a constructivist view of learning. Woolfolk (1993) describes the "constructivist view of learning" and the "cognitive mediational view" as follows:

> whatever the name, the key idea is that students actively construct their own knowledge; the mind of the student mediates input from the outside world to determine what the student will learn. Learning is active mental work, not passive reception of teaching. In this work, other people play an important role by providing support, challenging thinking, and serving as coaches or models, but the student is the key to learning. (p. 485)

In addition, Lebow (1993) proposed "Five Principles Toward a New Mindset" as constructivist values which support the use of distance learning experiences as a means of challenging students to construct their own meaning. Lebow's principles are as follows:

> - maintain a buffer between the learner and the potentially damaging effects of instructional practices,
> - provide a context for learning that supports both autonomy and relatedness,
> - embed the reasons for learning into the learning activity itself,
> - support self-regulated learning by promoting skills and attitudes that enable the learner to assume increasing responsibility for the developmental restructuring process, and
> - strengthen the learner's tendency to engage in intentional learning processes, especially by encouraging the strategic exploration of errors. (p. 5).

This section of the literature review has dealt with the goals of education and the teaching-learning process by looking at the purpose of and goals of education, the concept of teaching and learning and adult learning principles.

Within this general literature on education, the specific area of distance education must be considered.

Distance Education

Literature on distance education is varied and plentiful and can be found in articles, texts and journals as well as on the delivery mediums of distance education such as list serves and on-line journals and books. The literature reviewed below considers definitions of distance education, the typical distance learner, various technologies, audio-graphics, evaluation and drop outs.

Distance Education Definition

Keegan (1990) summarizes distance education as having the following characteristics: separation of teacher and learner; influence of educational organization; use of technical media; provision of two-way communication; and usually absence of groups but possible meetings. Keegan (1990) also looks at the independence of the learner as an aspect of distance education, where the learner may be completely separate from the instructor. In addition, Herchek (1991) describes distance education as "courses . . . (t)aught and studied at a distance via what is usually an exchange of materials, ideas, and questions by means of technology" (p. 2). In this thesis, a combination of Herchek's (1991) and Keegan's (1990) definitions will be used since the focus is on the separateness of the learner and the instructor, the use of technology to provide two way communication both visually and auditory to bring groups together. A supplementary view is presented by Vision for Change (1995) a government document regarding distance education in Alberta which suggests that no matter what the definition of distance education is the process must be learner centered and the focus must be on the learner.

Typical Learner

Some literature looks to define the distance education learner and as Speth (1991) suggests "the literature spends an inordinate amount of attention trying to construct a profile of the typical learner" (p. 22). This is usually done on large numbers of learners and tends to cover or mask the variability and specifics of individual learners. It seems that the needs of learners then become generalized and simplified. Threlkred & Brzoska (1994) suggest that "individual differences, and their impact on the learning process may prove more fruitful" than the generalizations (p. 49). Authors such as Speth, Poggio & Glasnapp (1991, cited in Willis 1994) regret that there were a lack of research regarding individual learners and their peculiarities. Other authors such as Mood (1995) in doing an annotated bibliography of distance education summarizes a number of other authors and suggests reasons why people choose distance education. The reasons that Mood cites include: geographic isolation, family responsibilities, not wanting to move to new campuses when registration changes, work responsibilities, and even environmental such as harsh weather. Many studies that Mood considers reasons for people taking a distance education courses such as "gain promotion in work, learn particular skills, assist them in a job or to sample an academic area before committing to it full time"(p. 101-2). Mood goes on to also say some students not only for a few courses but to take courses to obtain a degree.

Moore (1989) also did research on the typical learner and found that the learners wanted a body of knowledge and that they were very task oriented. Secondly, the learner wanted guidance in the study of that new knowledge. Thirdly, learners wanted to be able to do something with their new knowledge that was included in Moore's fourth point that students wanted to be evaluated on their level of understanding of the knowledge. Lastly, Moore found that the distance

learner expected help with the unanticipated problems within the course of study and also outside problems that would interfere with their learning of the material. Moore went on to discuss various technologies and types of learners that they suit and suggests strongly that consultation with the learner in designing programs is essential. Usually whenever learners are considered there is a portion of the literature that deals with technologies.

Various Technologies

In distance education there is a large body of literature that is specific to one or another type of distance education. This usually divides distance education along the lines of technology that is used to connect the instructor and the learner. This leads to large amounts of information on various technologies available. Some literature on technology will be identified here to give a sense of the literature available on the many delivery technologies. The technology specifically to be discussed is audio-graphics, which is what the participants in the study will be using.

A number of authors give representations and examples of various technologies and their uses although they tend to be situation specific. Bates (1995) has put together a general model (methodology) to compare and make decisions about various technologies based on an institution's individual circumstances, which is critical to the appropriate decisions being made. Additionally, he states that "(t)he choice of technology should be driven by the needs of the learners and the context in which we are working . . . ". His "ACTIONS" model consists of a number of areas within which a variety of questions are asked to assist in making decisions and is shown in Table 1.

Table 1 Bates (1995) ACTIONS Model

A	Access	How accessible is particular technology for learners? How flexible is it for a particular target group?
C	Costs	What is the cost structure of each technology? What is the unit of cost?
T	Teaching & learning	What kinds of learning are needed? What instructional approaches will best meet these needs? What are the best technologies for supporting this teaching and learning?
I	Interactivity & user-friendliness	What kind of interaction does this technology enable? How easy is it to use?
O	Organizational issues	What are the organization's requirements, and the barriers to be removed, before this technology can be used successfully? What changes in the organization need to be made?
N	Novelty	How new is the technology?
S	Speed	How quickly can courses be mounted with this technology? How quickly can materials be changed?

This model may assist institutions to make decisions and comparisons regarding the technology to use in various situations. While considering the literature on audio graphics the ACTIONS model will be used as a perspective.

Audio-graphics

Audio-graphics is thought as the "start of the 'third generation'[1] of distance education" (Bates, 1995). Audio-graphics uses telephone lines linked together to

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[1] The first generation is single technology with no direct student interaction with the originating teacher such as correspondence. The second generation uses integrated multiple-media approach

allow information (voice and data) to move back and forth between a number of learners and an instructor or between learners. The data can be entered by keyboard, mouse, electronic pen and tablet or scanned images and sent to other sites via the phone lines.

Using ACTIONS model (Bates, 1995) to discuss audio-graphics shows a number of issues to be considered. Each of the areas will be considered in turn.

Access

Access for audio-graphics could be high since most homes (90% in North America, Bates, 1995) have telephone access although software and various hardware would be needed[2]. At present, most users of audio-graphics go to a local site where they meet with other students in the same course. Depending on the system of audio-graphics used, it may require one or two telephone lines and computer hardware and software. The configuration of the system has consequences on the costs.

Costs

Costs depend on the type of access needed, the number of people to connect together and the audio-graphic equipment used. The line costs depend on such items as one or two lines, special services such as leased lines, fibre-optic networks and the policy of who pays line charges. In order to connect together a number of lines some type of conferencing equipment is needed, either at the phone company or by some provider who uses a bridge to connect several lines

---

that uses a tutor system. The third generation is two way communications and allows direct interaction between teacher and students or students and students. (Bates, 1995, p. 23).

[2] There is now becoming available the possibility of using the internet so only software and a writing tablet would be needed.

together. The audio-graphics equipment consists of a computer, software, keyboard, tablet, microphones, speakers, and a modem to put the voice and data together in the case of the OPTEL system to send the information down one phone line. The arrangement of equipment is dependent on resources available and the teaching and learning needs that are being addressed.

Teaching and Learning

Bates (1995) suggests there are four common modes of setting up audio-graphics teaching: one-to-one, one-to-group at one site, one-to-individuals at many sites and one-to-many at many sites. The configuration depends on the type of teaching and learning that is expected to happen within the learning situation (Bates, 1995, Hardy & Olcott, 1995, Moore, 1994), whether it is a tutoring situation or how learner or teacher-centered the process is. Part of this process is how interactive the process is or could be.

Interactivity and User-friendliness

Bates (1995) in his discussion of interactivity presents two viewpoints regarding audio-graphics, by using Moore (1989), an American, and Holmberg, (1990) a European, to illustrate contrasting endpoints on a continuum. The American view is that audio-graphics can and should be used to replicate face-to-face classroom teaching with its interactivity as the best learning possibility. The European view is that the use of distance education should break down instruction and learning requirements into various types of interaction such as print, telephone and correspondence tutoring. No matter how the teaching and interaction is set up, it requires a number of organizational issues to be addressed.

Organizational Issues

In terms of organizing the instruction, audio-graphics can be used as a substitute to regular classroom teaching and similar instructional techniques can be used. The institution needs to have some people to work on the technical aspects such as scheduling and equipment but the actual instruction can be added to the regular teaching staff (Bates, 1995). In considering using audio-graphics or other technologies, Bates (1995) feels the novelty of the technology is to be considered.

Novelty

Novelty is considered to be how new and exciting the technology is seen to be. Audio-graphics or at least the phone portion of the system is relatively old as a method of exchanging information, therefore the novelty of telephone is relatively low although authors such as Garrison (1990) suggests audio is an under-used mode of delivery. When graphics is added to audio, it becomes a relatively exciting technology.

Speed

Depending on what other support is used in the delivery using audio-graphics, the course or programs delivered can be changed relatively quickly. If print materials are also used, they make take longer to change but the actual instruction can be changed as easily as any lecture.

Summary

Overall, audio-graphics although it relies on older telephone technology seems to be well suited to teaching and learning. It may not have the glamour of videoconferencing, which is usually thought of as two way interactive video between individuals and groups that are remote to each other. As Gallant (1992)

quotes Tagyos as saying "it (video conferencing) is the next best thing to being there and provides a sense of immediacy, combining real time, full motion communication[3] with an array of graphic support capabilities" (p. 14). Brand (1992) describes videoconferencing as an "electronic meeting in which geographically separate groups communicate using live interacting audio, video and computer technology" (p.1).

The literature about other technologies gives the reasons for choosing and using certain technologies. For example, Sachs (1993) summarizes some of the reasons for using videoconferencing (but the same ideas are applicable to audio-graphics) as:

- access to instruction/training for students at a remote site,
- eliminate or reduce travel time and cost,
- eliminate isolation by giving those at remote sites a feeling of direct involvement,
- expand or share resources and expertise among sites,
- generate revenue by expanding programs to new audiences,
- eliminate or reduce time away from jobs and families by reducing need to travel,
- eliminate the need to bus students to special classes by taking the instruction directly to the students,
- provide a physical presence at remote sites and,
- improve the speed and accuracy of responses to questions or problems at remote sites.

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[3] Full motion means that the picture seen of the other person is the same as you see in a video and not consist of slow jerky movements of motion.

In the literature, most technologies have been discussed as to their qualities and their suitability for use in different situations. In most discussions of technology, there is also a discussion of evaluation.

Evaluation

There is a need for discussion of evaluation since many of the issues dealt with in evaluating distance learning are also covered in this study. As well, when the learners are discussing characteristics of their leaning environment they are evaluating it to some extent so evaluation is considered here. Evaluation in the literature is usually framed with a definition to put the evaluations in perspective. Thorpe (1988) says "(e)valuation is the collection, analysis, and interpretation of information about any aspect of a programme of education and training, and is part of a recognized process of judging its effectiveness, its efficiency and any other outcomes it may have" (p. 5). The same author goes on to say the three components,[4] (data collection, analysis, and interpretation) along with the process of decision-making are essentially a "public act open to inspection" (p. 7).

Thorpe (1988) reinforces this perspective when she says, "we cannot be so confident about an innovation that there is no need to check whether aims have actually been met" (p. 1). Authors such as Grotelueschen (1980) are careful in the discussion of aims and would add that attaining a "high proficiency in a skill that is considered to be inconsequential is not a valued outcome" and that evaluation is determining the value and it is more than mere data gathered.

The literature on evaluation seems to fall into either methods of evaluation or areas evaluated.

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[4] Thorpe (1988) uses components rather than stages to suggest the three components overlap and may have several rounds of each.

Methods of Evaluation

In investigating the literature in terms of methods of evaluation, a variety of methods were focused upon. Many authors seemed to prefer to use a variety of approaches and a wide range of participants. An example of this is Haughey (1993) in her evaluation report on videoconferencing in which interviews (both individual and group), written surveys, observations and document analysis were used. Kirby & Boak (1989) used videotapes to record the distance education process so that conversations would have a running timeline. The interactions were then coded as to teacher or student initiated interactions in a variety of areas.

Haughey (1993) suggests that "the convergence of data ensured robustness of findings and the diversity of sources allowed for a range of views to be documented" (p. 9). Included in Haughey's report was the plan that the analysis of data was ongoing and the responses helped shape the next questions being asked of the participants. Brinkerhoff, Brethower, Hluchyj & Howakowski (1983) summarize that there are three general evaluation approaches and they are to plan in great detail, to "wing it" with no plan or the more agreeable approach which is to plan as specifically as possible but be flexible and change as needed[5].

Other authors have followed more traditional routes that used data collection methods that employed measures of learning achievement (such as pretests, post-tests or grade comparisons), measures of attitudes (such as questionnaires, structured interviews, observations) and measures of implementation (which can also include questionnaires, interviews and observations), but may also include reviews by experts and reviews of institutional data (Savenye, Maher, & Collombo, 1983). Herchek (1991) used interviews and

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[5] Using the latter approach, where the evaluation is changed as data is collected seems to produce quality evaluations.

transcriptions to obtain information in an Alberta study of distance education learners. After each set of interviews (and before the next set), Herchek would give the respondents the transcript to use as a basis for the next interview. Still others such as Savenye & Box (1993) believed that observation of performance on the job or in classroom gives a valuable aspect for evaluation. This method of observation and subsequent analysis of data is based partially on ethnographic research used by researchers such as Bogdan & Biklen (1982).

Sachs (1993) suggests one of the best indicators of how the compressed video system works (or any technology) is to simply ask the participants some basic questions you would ask any class such as; was the topic valuable, was it the right length and how did students feel about the experience. Other questions would deal with the presentation being different from traditional face-to-face meeting so questions such as: how well could you see the monitors, were the visuals clear, was the audio clear, was there enough opportunity to participate and was support services available and how easy was it to access them would be appropriate questions. An ongoing study at the University of Glasgow suggests that there is a problem "of what can be discovered about the performance of teaching methods, and how to go about the task, (and) is in our view unsolved despite the size of the related literature" (Draper, Brown, Edgerton, Henderson, McAteer, Smith, & Watt, 1994, p. 3). Those authors go on to say that some researchers suggest "objective (evaluation) is (real) evaluation" while still others suggest data collection must be open ended to pickup the unexpected. Draper et al. (1994) cautions that this open-ended data cannot be quantitatively compared so other approaches must be used[6]. Their long-term aim was to measure three things: learner outcomes for students, the state of all factors in the situation with a

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[6]One method of analysis could be domain analysis.

significant impact on learning and the costs (e.g. in time and money) for all participants.

Draper et al. (1994) goes on to suggest Lorillard's "conversational" framework has potential to explain this teaching-learning process (p. 51). The parts of the framework rest on the principles that learning depends on learner activities, level of description, level of personal experience and how it operates in the world and then links between each of these. In the evaluations no matter what methods are used the areas to be evaluated are also crucial.

Areas Evaluated

Savenye & Box's (1993) research focuses on formative evaluation to assist in improving instruction and programs. They suggest it should be performed during all phases of design and development. The goal of the evaluation is "usually some version of, how effective is the system in enabling students or trainees to learn?." (p. 193). From that goal the authors felt three major evaluation questions could be derived which cover the areas of achievement, attitudes and implementation and those questions would be as follows:

1. How well do the compressed video (or any technology) instruction courses help the learners learn (an achievement question)?
2. How well do the learners, instructors, and managers, or administrators like the compressed video instruction course (an attitude question)?
3. How well is the compressed video (or any technology) instruction system working (an implementation question)? [Savenye & Box (1993) (based on Higgins & Sullivan, 1982; Morris & Fitzgibbon, 1978; Sullivan & Higgins, 1983)].

McIssac (1990) breaks the literature into learning, attitudes and attrition (instruction) and cost-effectiveness of courseware design (administration). These

areas are similar to those which Savenye & Box (1993) have used but assigned different names for the categories. Kirby & Boak (1989), as mentioned earlier, coded tapes as to a number of interaction categories in the classroom. The authors looked at types of interactions (academic, procedural, and social), who initiated the interaction (student, teacher, or other), as well as, the amount of time for each.

Biner et al. (1994) suggest that more research needs to be focused on learner satisfaction in distance education. To this end, Biner et al. (1994) have developed a quantitative tool called a telecourse evaluation questionnaire (TEQ). Biner et al. (1994) use thirty-three questions that cover seven factors to assess student satisfaction. The seven underlying factors are: 1) instruction/instructor, 2) the technology, 3) course management, 4) at the site personnel, 5) promptness, 6) support services and 7) out of class communication with the instructor. It is also suggested in the article that this TEQ instrument could be used as an effective ongoing assessment instrument.

Support was also addressed in the literature by Gehlauf et al. (1991) who felt instructors needed good trained system support technicians and also equipment orientation should be provided for both the instructor and students. One concern that showed up in the research of Dallat et al. (1992) was that tutors felt they were not technically prepared. Dallat et al. (1992) bring forth an additional point that says if distance education is compared to conventional face-to-face practice, the distance education program will fall short in some manner. In the literature there are many studies between distance education courses and the same courses taught traditionally although there is a debate on how good the researchers are at controlling for the many variables that enter into the processes.

Kirby & Boak (1989) found in their interaction studies that in all cases the instructor initiated most of the interactions and the interactions were of an instructional type. In terms of student initiated interactions, responses to questions

made up half of the interactions while explanations made up the rest. An interesting finding was that among the six courses in the research, the majority of instructor questions asked were memory or knowledge questions[7]. Moore (1993) suggests that there are other ways to classify interaction: learner-content, learner-instructor and learner-learner.

Drop Outs

This study looked at the issue of dropouts, since all the learners in this study had dropped out of regular education for a variety of reasons and has returned for another set of reasons. The issue of dropouts is a complex one since a variety of factors are involved when a student drops out. The learners in this study, since they have returned to school, would be considered to have "stopped out" for a time and then returned to continue their education.

Sherman & Wilkinson (1989) reviewed and summarized previous research on the non-completion of distance education courses and the procrastination in distance education about dropouts. They drew upon approximately thirty authors in their review and therefore their research represents a wide range of studies. Their conclusions fall into two main areas: non-completion of distance education courses, and causes of procrastination in distance education courses. As the initial part of their review, Sherman & Wilkinson portray a typical distance education student as a person older than traditional college students; above average in motivation, persistence, and independence; and one who has selected distance education for convenience. Convenience was reported as fitting into work schedules, travel schedules, and the opportunity to be self-paced. Sherman &

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[7] It would be interesting to see if this is peculiar to teleconferencing, distance education or teaching in general.

Wilkinson ask the question if research shows the distance education student as a more mature, responsible and self-sufficient adult then "why is there up to seventy per cent non-completion in some distance education courses?"

To answer their question, Sherman & Wilkinson initially found three main reasons for non-completion in the range of studies surveyed. These reasons were personal/logistical reasons which included change of goals, imbalance of time, energy, resources, and personal and family disruptions; motivational/psychological reasons which included motivation, and mis-matches of learning styles; and instructional issue reasons which included academic procedures, course content and course materials as most frequent reasons. Other reasons included lack of personalization and low frequency of instructor interaction. In each of the non-completion areas, Sherman & Wilkinson found research which contradicted their initial findings, for example in personal/logistical reasons other research showed many of the personal reasons became school variables such as poor materials and a long waiting time. In the area of motivation, the research showed a match of learning to teaching styles may have been an issue but other research using Kolb's Learning Style Inventory found that this was not a factor. Sherman & Wilkinson (1989) also found that the research tended to illustrate the extent of the problem but did not deal with the complexity and the uniqueness of the problem.

In looking at procrastination, Sherman & Wilkinson (1989) found little research in the area of distance education, but tried to compare some research which had been done in the traditional classroom. Sherman & Wilkinson found that academic procrastination was a complex interaction of behavioral factors and that study skills training and structuring may not be sufficient to reduce the amount of procrastination. Some studies used spoke of the fact that pacing caused procrastination, however Sherman & Wilkinson (1989) felt that this might have been a product of the instrument used rather than the reality.

Distance Learners' Needs

Research has been done in the area of discovering what distance learners need to be successful. From asking the students what they need to be successful, they are usually asked what they do in terms of strategies to do well in distance learning. In order to fully understand the strategies students employ, literature on learning strategies has been included.

Students' Needs

In looking at learning, one area that is described in the literature is the students' needs. Burge, Howard & Ironside (1991) from their research on what students in distance education courses wanted from tutors, found it was help in developing study skills, finding enough time in the day, preparing for exams and developing critical thinking.

Baath (1982) said distance education learners need four types of help:

1. Help with defining their learning goals;
2. Help in selecting appropriate learning materials;
3. Help when problems and difficulties arise during the learning process and
4. Help to evaluate the students' learning progress.

Along with these needs, others such as Andrews et al. (1991) found students had difficulty learning because the students tend to be passive rather then active learners, they don't think they have personal control or power over their learning, they do not believe their efforts will influence their achievement, they are dependent rather then independent learners, they are deficient in strategies, and inefficient in their use of strategies and they do not monitor and evaluate their

performance when doing school work. This deficiency in strategies needs to be explored further by looking at cognitive strategies and how they fit into learning.

Cognitive Theory

Reid & Hresko (1981) summarized the views of cognitive scholars (Ausubel, Bruner, Cronbach, Gagné, & Greeno) as being:

> ... Learning as construction . . . The learner is the most important element in the teaching-learning situation; not materials, lessons, teachers, or other factors external to the learner. . . . To understand that he or she must be active in his or her own learning... It is important to consider what happens internally to the person who is learning and to view learning as construction. The learner is the most important element in the teaching-learning situation; not materials, lessons, teachers, or other factors external to the learner. Effective instruction provides activities in the broadest sense to facilitate the *learner's ability to construct meaning* from experience. (p. 49)

It is important to note in Reid & Hresko's (1991) definition that they suggest materials, lessons, teachers, or other external factors do not have as important an effect as the internal construction of the learner. Reid & Hresko go on to say that it is very important for the learner "to understand that he or she must be active in his or her own learning" (p. 49). It is also felt that the learner must have the methods to be in a position so that they can be active in their learning. Methods that are developed from the cognitive theory then become cognitive strategies.

Cognitive Strategies

Cognitive strategies as outlined by Marfo, Mulcahy, Peat, Andrews & Cho (1991) suggest "that designing instruction to promote more learning is a process of selecting and creating ongoing external conditions of learning in a manner that helps to activate and support the learner's own internal learning processes" (p.75). Therefore in order for students to be actively involved in their own learning process, the student must have control of the cognitive mechanisms and these processes must be made explicit to the learner. In a summary of their research, Marfo et al. (1991), they say that cognitive strategy instruction must involve learning not only how to use a strategy but also explicit instruction in how to use, monitor and evaluate the strategies. In working with strategies, Marfo et al. (1991) use two constructs: control and explicitness. The students must be able to control their learning and the students must also know explicitly when and where to use the various strategies and be able to measure their effectiveness.

Many researchers in distance education have looked at control since the term independent learner appears much of the time in distance education research. Independent learner appears to suggest that the learner has control of the learning situation. From this, authors such as Baynton (1992) propose that control not only involves the learning environment but also the characteristics of the learners themselves such as learning styles. Garrison & Baynton (1987) also discuss the complexity of control and define control as the opportunity and the capability to direct, conduct, and decide decisions related to the learning process.

Strategies Definition

Authors explain and suggest that learning strategies are defined in many ways but generally "a sequence of procedures for accomplishing learning" or "a

combination of cognitive (thinking) skills implemented when a situation is perceived as one demanding learning" (Schmeck, 1988, p. 171). Weinstein, Zimmerman & Palmer (1988) considered several authors and suggested the following:

> Learning strategies are considered to be any behavior or thoughts that facilitate encoding in such a way that knowledge integration and retrieval are enhanced. More specifically, these thoughts and behaviors constitute organized plans of action desired to achieve a goal (p. 11).

In applying cognitive learning theory to learning and developing strategies, the strategies must be laid out explicitly to the student and the student must have control of the strategies in terms of their usage and evaluation of their effectiveness. Mulcahy, Marfo, Peat, & Andrews (1986) used these two points to develop their strategies program for effective learning and thinking (SPELT) program which addresses the process of teaching cognitive strategies to students. Authors such as Herchek (1991) used similar ideas in his study where a student said "when you just read and do it, it does not sink in as much" (p. 31) as other methods of learning. Herchek went on to suggest one method of storing information is using mind maps[8]. Evans & Dansereau (1991) suggest maps be used whenever relationships are present. Ingesman (1993) states that learning is "not just storing and retrieving information (but being able to) integrate new knowledge with existing" (p. 85).

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[8]Also called semantic webs, graphic organizers, idea maps and cognitive maps.

Specific Strategies

Athabasca University (a distance education institution) states that "(t)aking courses with us requires discipline, motivation and careful time management"(1994). They suggest that time management is one strategy which students need. In discussing time management, a student in distance education in Herchek's (1991) study, summed up the findings by saying "distance education is harder because you have to use and manage your own time, you can't fall behind" (p. 25). Authors such as Ellis (1991) explain that you must assist students in various aspects of time management so students can control their learning time.

A quote that comes up in many books is summarized as "(y)ou cannot manage your time, you can only manage yourself" (Kovach, 1991) and "everyone has the same amount of time - 24 hours a day or 1440 minutes per day - no more, no less". These statements explain the facts of time management and that good time management is the answer to getting more of the right tasks in the same amount of time. Fleet et al (1994) describes four problems students come up against. They are unexpected events occurring, finding time for more than studying, tasks taking longer than planned and no matter whatever you do, there are a million more things to do. Dealing with this time management problem can be done through the use of strategies. Other areas that strategies can be used is in the area of learning to think.

Costa (1991) agrees and shares an interesting viewpoint that "learning to think is probably best learned through imitation and emulation of significant others". This learning to think therefore must be modeled by the teacher and be visible to the student which may be of great importance in distance education. This brings in an idea by Lebaron & Bragg (1994) who comment "school reform advocates could enhance their position by focusing more attention on the

relationship between teacher preparation and school practice." They go onto suggest there must be more discussion of teacher training and its influence on the education of students. This has an implication in distance education where there may be less connection between the learner and the instructor and the area of strategies must be considered. The depth that strategies are integrated into a distance learning program may be explained by Lenskyj's model.

Lenskyj's model

In considering distance learning and learning in general, strategies are used in the process of learning. The integration of learning strategies into distance learning may follow Lenskyj's model of integration where the issue, in this case, the study of what strategies students use to learn in distance learning becomes part of their overall learning, as well as part of their distance learning.

This model suggests that there are various phases an issue fits into as it moves from a minority issue to become a main part of the educational system which distance education might be considered. The first phase of Lenskyj's model is one of ignorance or unawareness that a certain item is an issue or that if the issue is known, it is treated as being unimportant. The next phase is the example stage where we know about an issue but can survive without it. The clinical phase (or third phase) is where there is considered a deficiency and the solution is to fix the problem by prescribing more of certain item such as in the case of distance education where strategies could help students. The last stage is when the new item becomes an integral part of the whole system and people are able to discuss and reflect upon it.

Concluding Remarks

Overall this literature review has looked at adult education in general, distance education specifically and some of the distance learners' needs. It gives a sense of the literature available in the area of distance education.

By addressing the literature available, it has given a sense of where needs are in terms of this research. It seems that much of the literature deals with the overall concept of teaching and learning for adults and deals at length with adult learning principles. The literature also defines or at least gives a variety of views of what distance education is and its intended uses. Much has been written about the various technologies and their intended uses, but less has been done on considering the learner. This may be because distance education although having a relatively long history has been only a small part of education, but has had a major resurgence as the increase in the number of methods of delivering and the cost of that delivering is moving downward as more varied technology has become available. As more and more distance education is considered and done, there needs to be more investigation especially from the learner's viewpoint. The learner's thoughts and ideas about distance education must be considered.

Chapter III Research Design and Methodology

This chapter presents the research design and methodology, the process of data collection and analysis and the method of interpretation of the data. It also discusses issues of concern for the participants in terms of ethics and anonymity.

Introduction

In research, a direction must be taken to collect, analyze and present the data. That direction is given by the research methodology. In this thesis, the research methodology flowed from Leedy's (1993) "bedrock axiom" that states "the nature of the data and the problem for research dictate the methodology" (p. 139). Patton (1990) agrees that "(p)urpose is the controlling focus in research. Decisions about design, measurement, analysis and reporting all flow from purpose" (p. 149-150). In this study, the purpose was a combination of description, explanation and exploration. A review of related research was used as the basis for the development of the qualitative research methodology used in this study.

Since distance education is considered to be learner-centered, the focus of any research must on the learner. This study considered the distance learners' view of 'quality' in the learning situation. More specifically, the study obtained a better sense of what learners consider are characteristics of quality in distance education and how the learners try to create a better quality learning experience for themselves. Overall, the qualitative methodology fit the purpose of seeking learners' perceptions of a quality learning experience and also assisted the

researcher to discover learners' strategies on how they make the learning experience better quality for themselves. In doing qualitative research, methods based loosely on an ethnographic style were used since the intent of the research was to, as Spradley (1979) puts it, "learn from the people" (p. 3) involved in distance learning. The qualitative methods used included a questionnaire, individual interviews, small group interviews and field notes which allowed the researcher to gain insights into the characteristics of a quality learning experience in distance education, and also what strategies students use to achieve a better learning experience.

Research Design

This study focused on the question: **What are the learner identified characteristics of quality learning experiences using the Telewriter?** In order to collect data for the research question, the methods used are designed to follow directly from the question and sought the information from the sources; the learners themselves. Since this study required the researcher to collect specific data to study this topic and needed in-depth information, data were collected from a small number of learners through the use of a questionnaire, individual interviews, small group interviews and field notes (journal). These assured data validation and triangulation.

In similar research, a qualitative research method was chosen by Gaboury-Smith (1995) who said "(t)o understand how the learners perceive their world and what are the nuances and subtle differences of quality requires a qualitative approach" (p. 38). This is in line with Leedy (1993), who suggests that "qualitative research provides attention to particulars, uses the expressive language of the informant, works with the data given and also includes the researcher as a part of the process" (p. 35). Patton (1990) agrees by saying that more depth is

obtained by qualitative methods and that they permit data collection which is not "constrained by predetermined categories of analysis (and this contributes to) the depth and detail of qualitative data" (p. 160). Patton goes on to suggest that qualitative methods provide a "wealth of detailed data about a much smaller number of people and cases" (p. 165). The qualitative method allowed the researcher to go to the source of the information, the learner, and collect the particulars of the learners' experiences in their own voices which lead to providing insight into the learners' experiences in distance education.

Selection of Participants

The participants in this research were self-selected volunteers who came from a similar distance learning situation but had a variety of backgrounds and experiences although some commonalties existed. The participants were all taking Alberta High School credit courses using the Telewriter (audio-graphics) as the primary means of communication with the instructor. The intent of the learners was to upgrade their education to go on to post-secondary institutions. Approximately sixty students from ten sites were taking seven Telewriter courses in the September to January term. All of these students received a faxed Letter of Introduction (Appendix A), a Participant Agreement Form (Appendix B) and a Learner Profile Questionnaire (Appendix C). From this number, eleven filled in the Participant Agreement Form and the Learner Profile Questionnaire at the beginning of the course. Originally it was intended to select ten participants, but all eleven were selected based on their backgrounds and previous educational history, as well as, location. The participants who volunteered were from three sites out of the ten possible sites that had Telewriter learners. This may have due the persistence of the site personnel (site coordinators and other instructors) at those sites.

The small number of participants was consistent with the research question since a depth of information was wanted and obtained from a small number of learners. This provided a greater detail of information than would be obtained from researching many learners with little depth. The sample was small compared to the population of distance learners and therefore the research is not directly generalizable.

Theoretical Framework for Data Collection

In the collection of the data, the approach used consisted of a questionnaire, individual interviews, small group interviews and field notes. The approach, based on an ethnographic methodology, was chosen since ethnography is defined by Spradley (1979) as "the work of describing culture" (p. 3). Spradley goes on to explain that culture is "the acquired knowledge that people use to interpret experience and generate social behavior" (1979, p. 5). In terms of distance education, the culture of the learners is how the learners provide meaning to what they are doing. The centering of the learner in their context is important to the understanding of distance education. Flowing from this, the data collection process was developed.

Collection of Data

In shaping the data collection process, a system based loosely on the ethnographic process was adopted. The collection of data from the small group of selected informants (the distance learners) used different methods and included the following: a questionnaire to obtain demographic information, a set of individual interviews to gather characteristics of present and previous learning experiences, and small group interviews to go beyond present situations and obtain information

on characteristics of other possible quality learning situations. In addition, data were gathered using researcher field notes. In the method of ethnography, Spradley (1979) clarifies the distinction of subjects and informants as "(w)ork with subjects begins with preconceived ideas; work with informants begins with a naive ignorance" (p. 29). In terms of carrying out the collection of data, the language of the questions of an ethnography is different than other survey questions. The language of ethnographic research 'questions' "depends more fully on the language of the informant (and the) questions arise out of the informant's culture" (Spradley, 1979, p. 31). Each method of data collection; the questionnaire, the individual interviews, small group interviews and researcher field notes are discussed in the order of their use.

Learner Profile Questionnaire

Questionnaires are used more often in quantitative research but were used here to collect specific information. The questionnaires were designed with specific purposes in mind. The questionnaire (Appendix C) was aimed at obtaining background of the participants that gave a context of each participant's unique setting. The other use of the questionnaire was that by filling in the questionnaire and returning it to the researcher, the participants showed a commitment to the research. As well, the questionnaire assisted in determining times of classes to be used in setting up interviews and having information that would establish a familiarity between the researcher and participant.

The small use of questionnaires followed from the drawbacks associated with using them in the collection of data, Patton (1990) considers the drawbacks of questionnaires for obtaining data beyond the direct question:

> because open-ended responses on questionnaires represent the most elementary form of qualitative data. There are severe

> limitations to open-ended data collected on questionnaires, limitations related to the writing skills of respondents, the impossibility of probing or extending responses and the effort required of the person completing the questionnaire. (p. 24)

Patton (1990) went on to say "the major way in which qualitative researchers seek to understand the perceptions, feelings and knowledge of people is through in-depth, intensive interviewing" (p.25).

Individual interviews

The interview process focused on understanding the learner and their distance learning experiences and went into depth by investigating what these learners value in distance learning and also, how they make the experience better quality for themselves. The interviews were done informally using a semi-structured approach in which "some deviation from the interview guide is permitted" Borg & Gall, 1989, p. 397).

The interviews were done using the telephone as the technology, since as discussions with learners showed convenient times were an issue for the learners as well as the researcher. As Borg & Gall (1989) suggested the use of telephone as an interviewing tool has increased since it cuts down on travel costs of the researcher. In this study the use of the telephone helped since people " are easier to reach than by personal visits" (Borg & Gall, 1989, p. 457). Borg & Gall also suggest that "establishing rapport may be easier in the face-to-face interview, (although) the physical presence may stimulate response distortion" (p. 457). A concern mentioned by Borg & Gall of some respondents not having a phone was encountered in this study but remedied by interviewing the learner between classes at their site. Tape-recording was done with the permission of the participants and they felt it was easier to deal with the taping going on at a distance since

sometimes the sight of tape recorders hinders the interview process. In addition, the use of the phone allowed the interviewer to make notes and jot ideas down with out interrupting the flow of the interview. It seemed that using the telephone as an interviewing tool allowed the interviewer to build rapport and work with the questions.

The development of the questions was an ongoing process throughout the literature review and from the information collected from the questionnaires. The questions were designed to simulate a conversation where rapport was attained and hopefully maintained by moving from questions to friendly conversation as needed to keep the rapport. The questions were developed from what Borg & Gall (1989) say are Spradley's three most important elements in an interview: First there must be an explicit purpose which in this study was to gain an understanding of the characteristics that learners feel make a quality learning experience and each question was designed with that in mind. Secondly, ethnographic explanations must be done to explain to the informant (leaner) why the questions are being asked and also encouraging a description of various situations in their own words. Thirdly, the questions can be one of three main categories, the first descriptive which are "aimed at eliciting respondents' perceptions of some aspect of their culture", the second structural questions on how the respondent structure of organize their knowledge or perceptions and lastly contrast questions helps the researcher find out "the dimensions of meaning that respondents employ to distinguish the objects and events in their world" (p. 398).

The interview questions were set up with the above views in mind and included probes within them so that similar areas were asked of each participant. The questions also evolved over the first interviews and they were used as pilots with the data being used and verified in the small group interviews. As an interview was being done ideas and thoughts of the researcher were being recorded

to assist in the formulation of new probes to ask as well as notes were being jotted down in the field notes during and immediately after each interview. The individual interview questions are shown in Appendix D.

The interview process was broken into five areas with two of them being an introduction and a conclusion. The introduction consisted of some general discussion of how courses were going, the weather and other items of general content. The introduction also reviewed the purpose of the study, the ability to opt out at any time, the assurance of anonymity and confirmed the permission to record the interview.

The first section of questions covered the participant's situation before entering AVC-E, their present situation at AVC-E and the participant's plans for the future. Included in questioning of their previous situations was how far they went in school and the level attained. Also considered was the reason why the learner left school, was it their decision, others' decision, or a mutual decision of a number of parties. Also considered was the time between leaving school and the returning to learning, whether they worked and if so at what. The reasons for returning to school was also probed with the learners as well as the reason for choosing the school and its location they are now attending. Their present situation was also questioned to give a context for their learning in terms of out of school commitments that may have an effect on their learning. In addition, verification of the information on their Learner Profile Questionnaire was done during the individual interview to build rapport. Their plans for the future was also probed in terms of time to finish that phase of learning, their intended marks, where they plan to continue their education and their intended career.

The second section of the interview covered the participant's distance learning experiences. It examined whether the learner had previous distance learning experiences, the results, and feeling about them if there was any. Next a

discussion of the students present distance learning situation was conducted looking at issues like orientation, interactions, amount and type of feedback and positive and negative learning situations. It also inquired regarding if the learners learning has changed as result of the distance learning experience and level of responsibility the learner felt they had with regard to distance learning. The next section considered similar issues but went into more depth.

The third section covered the participant's opinions and evaluations of their distance learning experiences. McLure (1990) suggests that "another substitute for direct questions in interviewing is to ask for explanations of or reactions to critical incidents" (p. 342). In this study, the identification of critical incidents came as data were collected and allowed the participants to give their perspective as it related to other experiences. The questions mainly used information from earlier questions and asked the learners to answer the question "why". For example, learners were asked to describe a situation in which they (the learner) felt they really learned and then they explained why they felt they learned and what were the characteristics of that situation. The section also asked the learners to consider what possible changes could be made to make the learning situation the most ideal or the best for them.

The last section concluded the interview with a short wrap up. It reiterated the ability to opt out at any time, that a transcript would be sent to them shortly for their verification along with a transcription validation letter (Appendix F) and asked to make any clarification or changes to ensure accuracy of the transcription. Included in the conclusion was a thank you for their time and information. In addition, the ways to contact the researcher was reviewed.

Once the individual interviews were being done, analysis was proceeding. After all the individual interviews were complete, small group interviews were set up.

Small Group Interviews

In Gaboury-Smith's (1995) research on characteristics of quality learning experience in distance learning she recommended that most of the learners in her study tended to be "very realistic, focusing on what is already available rather than looking beyond to consider all possibilities" (p. 115). Gaboury-Smith (1995) suggested it may be worthwhile to use structured focus groups or small group interviews that may bring out ideas that would lead others in the group situation to build upon and come up with a variety of different alternative characteristics of quality of learning situations in distance education. Morgan (1988) suggests the main advantage focus groups offer is the "opportunity to observe a large amount if interaction on a topic in a limited amount of time". Patton (1995) also suggests the use of focus groups since:

> (p)articipants get to hear each other's responses and to make additional comments beyond their own original responses as they hear what other people have to say. The object is to get high quality data in a social context where people can consider their own views in the context of the views of others. It is a highly effective qualitative collection technique. (p. 336)

Brown et al. (1989) in Patton (1990) agree with Patton and say groups are "not just a convenient way to accumulate the individual knowledge of their members (but) they give rise synergistically[9] to insights that would not come without them"(p. 17).

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[9] From synergism, meaning combined action is greater in total effect than the sum of their effects. In other words, people building upon each other's ideas is more effective then the individual interviews being done.

The small group interviews were facilitated by working from a script of questions (Appendix E) and were tape recorded for accuracy. During the collection of data from the participant, there were also field notes being written throughout.

The small group interviews were also done using the telephone and doing audio-conferencing. The choice of audio-conferencing was made for similar reasons as the individual interviews and by doing so a number of learners from various sites to met and discussed (on line) their distance learning experiences. The conferencing was able to link up learners who were at home as well as students at the site. The first of the small group was used as a pilot to verify that the information received was consistent with what was obtained in the individual interview and it seemed to be so the telephone conferencing was continued.

Field notes

During and following each interview, the researcher made field notes in a journal style, which recorded thoughts, feelings, areas to be considered in subsequent interviews and ideas for analysis of the data. This use of field notes is also intended to assist the researcher to become more of a part of the research and help in the interpretation of the data. Verner & Schoele (1987) (although discussed in a somewhat different context) suggest that:

> field notes are a way of recording the ethnographer's internal states. These notes provide another source of information for the researcher to use as the research process goes on. (p. 273)

Also, the field notes are a memory aid and a place for the researcher to do self-reflection. Spradley (1970) believes field notes should come directly from the observing and interviewing process and ethnographers should always keep a journal. Like a diary, this journal will contain a record of "experiences, ideas,

fears, mistakes, confusions, breakthroughs and problems that arise . . . throughout the research" (p. 71). The field notes represent the personal side of the study since in qualitative research, the researcher is the major research instrument. As the information in the field notes and the data from the interviews and focus groups are collected, analysis was addressed.

Data Analysis

The data analysis was a cyclical process where analysis was done continuously as data were collected. Initially, as the data were collected from the first set of interviews and from the questionnaire, analysis was done on the collected data by "dividing it into its constituent parts, then identifying the relationships among the parts and their relationship to the whole" (Spradley, 1979, p. 92). This analysis then continued as more data were collected to develop themes and domains of information. This process followed Spradley's (1979) process called domain analysis and was assisted by the use of the computer doing word searches and tabulations of various terms and concepts. This allowed for grouping of data and seeing trends as well as the items that stood alone. As the analysis was done, the themes and domains were taken back to the participants to ensure that their views were indeed being obtained and that the process was acquiring their perceptions of distance learning so that the interpretation was accurate.

Interpretation and Reporting of the Data

The data were interpreted and presented in various categories as defined by the learners themselves. Included in the presentation of the interpretations is

verbatim quotations which are extremely useful in presenting a credible report of the research. Quotations allow the reader to judge

> the quality of the work - how close the ethnographer is to the thoughts of 'natives'[10] in the field - and to assess whether the ethnographer used such data appropriately to support conclusions (Fetterman, 1989, p. 23).

Whenever possible, conclusions were fed back to the learners and verified or clarified to ensure the reliability, validity and the integrity of the study.

Ensuring Reliability, Validity and Integrity of the Study

In order to ensure that the data presented in this study were accurate, a number of checks were done including verification of taped interviews, feedback of analysis to participants for verification, and also triangulation of methods of data collection.

In each of the interviews, tape recording was done and the participants verified the transcripts. Also, as Reason & Rowan (1981) suggest "good research at the non-alienating end of the spectrum . . . goes back to the subject with the tentative results, and refines them in the light of the subjects' reactions" (p.248). This makes sure that the researcher's conclusions are directly related to how the participants perceive distance learning and it also reduces how ethnocentric the researcher may be. Lather (1986) in discussing triangulation says you need to include "multiple data sources, methods and theoretical schemes (which are) critical in establishing data trustworthiness. . . (Also) it is essential that the researcher seek counter patterns as well as convergences if data are to be credible"

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[10]The term natives (in this study) refer to people engaged in the process under consideration. In this case, the distance learners are the natives.

(p.248). Throughout the process of data collection, analysis, and interpretation, the learners and their rights were considered.

Ethical Considerations

In all research, the participants have the right to have their privacy and safety protected. To ensure this, a number of issues were considered. First, anonymity of participants was guarded by coding of all materials and not using any methods or descriptions that would make any person readily identifiable. Secondly, informed consent of each participant was obtained after explanation of research procedure and the intended use of data was done. This was done both verbally and in a detailed written form. Also, the participants were able to withdraw at any point in the research process. Lastly, it was felt that there should be something in this research process for the learners. This was done by presenting a rich perspective of the learners' perceptions with regard to distance learning. This study is available to the participants to read, as well as, available to distance education planners, instructors, and administrators to view as they design and develop programs and courses.

Summary

In this chapter the research design and methodology, the process of data collection and analysis and the interpretation of the data were presented. As well, a short section on ethics was presented. Overall, a qualitative research methodology was used in this study with questions and analysis based on an ethnographic style in order to seek learners' perceptions of a quality learning experience and how the learners endeavor to make the learning experience of more quality for themselves.

Chapter IV Findings of the Study

Introduction

As previously noted, the research question "what are the learner identified characteristics of a quality learning experience in distance education using the Telewriter?" was used as the guiding question in this study. Learners responded to various questions in individual and small group interviews, as well as, completing the demographic questionnaire. Learners also provided numerous comments beyond the questions asked. The collected data are presented in this chapter.

First, a background is given for the institution that the students are attending, which includes a description of a typical Telewriter class – will give a context for the comments which the learners have made. Secondly, a snapshot of each of the learners is provided. This covers their previous education, their present situation, and their future plans. Following this is a compilation of students' learning experiences in distance learning, which includes present and previous distance learning experiences. Included are also learners' opinions and evaluations of their distance learning experiences. The next section describes the themes, which have emerged from the data. Following that, a compilation of the various characteristics that learners have identified which makes a quality distance learning experience for them. Following this are the learners' suggestions and what they consider would improve the distance learning experience for them.

Context of the Learning

When discussing the data collected, the background of the institution must be considered in order to place the data in context. In addition, the typical Alberta Vocational College - Edmonton learner will be described to assist the reader in understanding the learners in the study. Also a description in the learners' own words is made so that readers can gain a sense of a typical Telewriter course and what a class is like for the learners.

Background of Distance Learning at Alberta Vocational College

Alberta Vocational College-Edmonton (AVC-E) is one of four Alberta Vocational Colleges that was set up after World War II to train and rehabilitate war veterans. At present Alberta Vocational College-Edmonton has a main campus in downtown Edmonton with four smaller Edmonton campuses and regional campuses in twelve rural communities, which is where the learners in this study are located. In terms of numbers, over sixteen thousand students were registered in 1994/5, with over half of those registrants being full-time[11]. The college provides instruction in a variety of programs including Academic Upgrading, skill training in health and business and pre-employment entry level training in the trades, technical, and service industries. Also, English as a Second Language and Personal Management skills are taught. In addition, AVC-E has delivered programs and courses around the world through its International division.

Classroom instruction, computer assisted instruction, self study learning, tutor assisted learning and distance learning are all possible methods of instruction

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[11]Information from Alberta Vocational College Edmonton Calendar.

and learning in AVC-E programs and courses. The Alberta Vocational College-Edmonton has been involved in print based distance education for many years and Telewriter for five years as part of its mission of enabling Albertans to be more effective members of society by providing programs and services and minimizing barriers for learners. To help put this study into perspective, a description of AVC-E is presented and a description of typical AVC-E learner along with a section explaining a typical Telewriter class from the viewpoint of the Telewriter learner.

Typical Alberta Vocational College-Edmonton Learner

The typical AVC-E learner is described in the AVC-E Calendar as a person between eighteen and seventy-five years old with the average age being approximately thirty-two years. Males to females are a forty to sixty percent split. Fifteen percent of the learners have less than grade nine education while thirty-three percent have above a grade eleven level when they enter AVC-E. Approximately 84% of the students were unemployed before entering AVC-E. However as mentioned earlier (Threlkred & Brzoska, 1994), the actual aggregation of characteristics loses much of the uniqueness and differences within the student population.

In this research the students fell within this typical classification and are described in detail in the section on student backgrounds. The similarities of the students in this research is that they were all from the regional sites and all were taught one or more of their courses using audio graphics (Telewriter).

Description of Typical Telewriter Course and Class

Using audio graphics to teach a course requires that the course be set up in a manner to facilitate the instructor's style. In this section, I consider a typical class

including a brief description of the equipment used and the process of hook-up and the start-up of a class session.

The Telewriter was used by the students in this study to connect them to each other and to the instructor at the same time similar to a classroom setting except the students are in different communities and are linked by the Telewriter. The courses covered by the Telewriter included Biology 20 & 30, Chemistry 20 & 30, Science 10, Mathematics 20 and Physics 20. Each course follows the Alberta Education Curriculum. The courses have been adapted to fit the use of audio graphics with instruction and discussion being done over the Telewriter. To supplement the instruction, courses either used print materials in the form of textbooks, Alberta Distance Learning Modules, instructor-developed notes, or outlines, or a combination of these materials.

A typical class, as described by the learners in this study, would be that the students enter the Telewriter room at their site where the Telewriter and its associated equipment is kept and if the computer and modem (Appendix G) were not on, then one of the students switched on the equipment and phoned into the bridge which links up a number of sites and allows flow of information and audio among the sites connected. Once the sites are linked the learners can respond to and interact with the other students and the instructor. The instructor usually starts each class with a roll call or a review to check which sites are on line and which students are present for that class. The instructor then teaches in a similar manner to a classroom session except communication is through the keyboard, voice, and writing tablet. The instructor also has access to previously stored images in the form of slides that are placed on all the computers and accessible from a directory which can brought up onto the screen and discussed and written on as the need arises. Learners explained that usually homework was gone through, questions asked and then new topics presented and discussed depending on the need of that

particular class. Even with the similarities in the classes, the learners expressed a variety of comments about what went on in their classes. It seemed their views of the learning experience for them also flowed from their past learning experiences.

Learners and Their Experiences

Introduction

In asking the learners about their pervious learning experiences, a number of areas became evident. First, that the situations they find themselves in at the present are very diverse and the connection to each other and this study is that they are taking one or more courses by Telewriter from AVC-E. In addition, their previous school experiences are very diverse, some completing high school without the courses they currently need, some not completing high school and some not even entering high school. It can be said that many of the students dropped out or stopped out of schooling and now have returned for a variety of reasons and have chosen AVC-E. The present and past situations for each of the learners will be considered and also their plans for further education.

Snapshots of Learners

Each of the learners in the study had a unique setting in which they were doing their learning, as well as, a variety of past learning experiences that seemed to contribute to their feelings about the experiences as discussed in this study. These will be described in turn for each of the learners in the study will be considered.

Paul

Paul was in his second semester[12] with AVC-E Regional Programs taking one Telewriter course along with two classroom delivered courses and one print based correspondence course at the time of the study. He is between thirty-six and forty years old and divorced with no dependents. In his present courses, he expects to complete them with marks in the upper 70s. After this term, he will have one more term to complete at AVC-E to be ready to go on and continue his education.

Paul previously completed grade ten in 1975 obtaining just over twenty credits[13]. Since leaving school he has started but not completed two print based correspondence courses. His decision to leave school was linked to quitting to leave the family farm where he was "labour, free labour" and by dropping out of school and moving away from home he could work "for himself" and make money from his labors. Once out of school and away from home, he rebuilt engines in a machine shop, delivered pizza, sold a variety of items including vacuum cleaners and cookware, worked at a service station, and did sand blasting, painting and welding in a industrial paint shop.

The motivation for Paul to go back to school was to get out of labour jobs and "start applying my brain cells rather than my brawn." He chose to work toward a career as an Electronic Service Technician, which requires a one-year course at Northern Alberta Institute of Technology (NAIT). At the end of this course, he will be able to repair VCRs, televisions, stereos, and computers.

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[12] Semesters are of five-month duration the same as in Public high schools.

[13] In Alberta 100 credits are required to graduate from high school with a diploma. In each year of high school, (grade 10, 11 & 12), students are expected to obtain about 35 credits toward their total.

The choosing of AVC-E Regional Programs was fairly straightforward with Social Services saying "either off Social Services or go back to education." The AVC site in a small city was close to where he lived and it was possible to get a grant from Student Finance Board to attend.

Kate

Kate is a single twenty-year-old with one dependent child and was, at the time of the study taking two Telewriter courses and one classroom course. She had taken a Telewriter course in the previous term and had also successfully completed a number of print-based correspondence courses. She attended a number of high schools at the grade ten level, before being asked to leave each school for "skipping," which she felt was due to bowing to peer pressure, and "wanting to be one of the gang, (so) I followed along (downtown)". So was, therefore, asked to leave each school for poor attendance. The last high school allowed Kate to do print based correspondence instead of attending classes. The correspondence courses worked out well and she completed them with good grades.

After doing the correspondence courses, she worked at a number of jobs including fast food outlets and a car rental agency. While working, she was taking another correspondence course until she became pregnant and felt continuing correspondence would be difficult with a baby, so decided to go to a regional AVC-E site which was close by. She believed that instructor led courses would be more appropriate for her at that time compared to the print based correspondence she had experience with. After the term, she was in at the time of this study; Kate would have two more terms to complete in order to apply to Mount Royal College in the Criminology program. From that program, she felt that with some volunteer work with the Royal Canadian Mounted Police (RCMP), she could either get a

good job or go on to the University of Regina and take a Bachelor of Science in Criminology program which would take a total of four years to complete.

Dave

Dave is in the 31-35 range, single with no dependents and living in a small town about 20 minutes from his AVC regional site. Dave, similar to Kate is presently taking two Telewriter courses, as well as, one classroom course. He has had no previous experience with the distance education.

His previous education included completing high school but was one credit short of obtaining a diploma. He took the general courses as opposed to the academic courses. After high school he apprenticed and obtained a Journeyman Sheet Metal Mechanic and has worked at that for approximately 15 years. He has also done some upgrading at night by taking a Math 33 course from Edmonton Public Schools Continuing Education department to complete his high school diploma. He has also obtained his fourth class Power Engineering certificate that has indirectly lead him to his present upgrading. In order to do the next level of Power Engineer (third class) he needs Math 30 and Physics 30. In addition, he feels that while upgrading he would be able to upgrade his English to a higher level.

On questioning why he would want to change from a Sheet Metal Mechanic where as he said there is a "reasonable amount of work" to Power Engineering, he said "that sheet metal mechanic jobs (the big ones anyways) are usually out of town and between large jobs there is usually a wait, but being a Power Engineer is a full time position in one place". He also commented that he has seen many jobs

advertised for third class Power Engineers at Wabamun[14] and other power generating stations since there is about ten Power Engineers for each twelve hour shift. The Power Engineering course will take Dave about ten months to complete at Northern Alberta Institute of Technology (NAIT). Then while working as a Power Engineer he can upgrade with a combination of work experience and correspondence learning to a second class and then to a class one.

Joyce

Joyce at the time of the study was in the 31- 35-year-old range with five children between the ages of three and ten years. She was somewhat different in that she was taking only one course at AVC, which was a Telewriter course. She had taken a Telewriter course in the previous term, as well as, done some correspondence courses. Before AVC, Joyce had completed grade 10 although she obtained very few credits. She left school because her family moved out of the country and in the new country she never went to school. She has since taken a secretarial course and worked in a variety of jobs including fast food outlets, a food packaging plant, landscaping and house cleaning. The decision to return to school came about as the company she was doing food packaging for moved to a location where she would require her to find transportation which was not available to her. She decided to return to school to upgrade and obtain the prerequisites to enter Concordia College and then proceed to the University of Alberta to become an elementary or kindergarten teacher. Joyce has taken twelve courses at AVC before the term in consideration. That now leaves her with two courses to take, the Math 20 on the Telewriter at the time of the study and

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[14]Wabumun is a site near Edmonton where a coal fired electricity-generating station is situated. Nearby are also two

following that Math 30. By taking only the one course she is also able to work part time cleaning houses, which takes up about twenty-five hours per week.

Bob

Bob is single with two dependents, one school aged and one pre-school aged, and has taken seven courses previously with AVC. He was taking one course by Telewriter, one by correspondence and one in the classroom and one self-study computer course at the time of the study. He has been out of school approximately fifteen years, leaving school in grade eleven with forty-five credits. In grade eleven, he failed three courses needed to get into his trade so when faced with the fact of retaking them he dropped out. After leaving school, Bob has worked doing a number of labour type jobs such as roofing. He also took a class one driving course.

The decision to go back to school was prompted by a friend in business who "coaxed him" to go back to school to upgrade. The friend also suggested that AVC was a good place to go since he knew of many others who had gone there.

At the time of the study, Bob had completed seven courses in his upgrading. The courses were all done to above 85% mark. He intends to go to Northern Alberta Institute of Technology and take business finance (a two-year course) so that he can do accounting as a career.

Eva

Eva at the time of the study was between 36 and 40, separated with two children. She went to grade nine in school; left school then did correspondence for grade ten but didn't complete it. She then went into upgrading in a situation similar to AVC, but didn't complete due to a change in family circumstances and

until last year when she enrolled in AVC has worked at retail sales, bartending, water slides, real-estate office, clerical, and janitorial jobs.

Eva has been at AVC for one year and has completed six courses and is presently taking three courses, one in the classroom, one by Telewriter and one using correspondence materials. She was originally in another Telewriter course but found it too difficult, so dropped it in favor of a print based correspondence Psychology course which will help her towards her goal of being involved in counseling. Her goal at the time of the study was in a state of change. Originally her goal was Psychiatrist, but with two children and the consideration of six or eight years of University, she had been reconsidering her goal. She is presently working with an Alberta Vocational College Career Development Officer to consider her options.

Norma

Norma at the time of the study was married with three school-aged children. She was enrolled in three courses, one on the Telewriter and two in the classroom. Norma obtained grade ten about fifteen years ago with the last two years of school being in a single room multi-level classroom. Since then, she has been involved in the Adult Basic Education program for half a year, two years previous to the present term. Norma explained that until grade eight when she was placed into the alternative school she had trouble in school, mainly "I was having troubles with the teachers, not the work itself, no, I was pretty good at it." Since that time she has worked as a waitress, store clerk and gas pump jockey. The reason for going back to school was to upgrade and take a Licensed Practical Nurse (LPN) course at Alberta Vocational College in Edmonton, which would take one year.

Holly

Holly at the time of the study was single between 26 and 30, with two schools aged children. Her goal was to become a Dental Assistant, which would require an eight-month course at Northern Alberta Institute of Technology. Holly's previous education consisted of gaining a high school diploma in 1986 passing with minimum grades, about which she described "I just made 50 like, just enough to pass." Her return to school was prompted by the need to raise those marks so she could get into a Dental Assistant program which requires grades between 75 and 80% for acceptance in to the program.

Since high school Holly has not worked and returned to learning in 1993 at AVC where she started at a grade 9 math and English level to increase her knowledge. Since that start she has been at AVC "on and off" until the present due to changes in her marital status, a car accident, as well as, "a million other things." At the time of the study, she was enrolled in two classroom classes and one Telewriter course.

Isaac

Isaac at the time of the study was under 25 years old, single with no dependents. He had completed up to grade nine in school in a small town in Alberta and attended high school but "didn't do so hot in high school" but ended up obtaining only some grade 10 and 11 courses before leaving school. The reason for leaving school was "I just got very tired of school . . . I was three years older than everyone else" because of a speech impediment which "affected my ability to read and I didn't read until grade four". After leaving school, Isaac worked as a live-in caregiver for an older family member. Isaac's impetus to return to schooling came because of not being able to find work. "I was told point blank.

hey you're a nice person, you're well turned out and everything but you don't have high school" so he decided to go back to school. He choose AVC because of "(i)t's a high quality education, (and) good quality instructors for the least amount of money." The money was an issue for the first term, since Isaac was a fee payer[15] although at the time of the study he was on Student Finance Board funding.

Isaac is the one student in the study who was taking all three of his courses using the Telewriter. In his previous term, he did three in-class courses and achieved one mark in the mid 60's with the others in the high 80's. Isaac is planning to be a Physical Therapist, which will require a degree from a university.

Raymond

Raymond at the time of the study, was in the range of 31 - 35, married with children and had completed grade nine approximately 20 years ago. Since that time he has been mainly working as a taxi driver, and the reason for returning to school was "(w)ell I got a family of three, three children (2, 6, & 9) and a wife and I can't see going anywhere fast as a taxi driver, it's getting harder and harder to make a dollar." Raymond enrolled in Alberta Vocational College, with this being his first term and taking one Telewriter course and two in-class courses. His eventual plan is to work in the Emergency Services field as an Emergency Medical Dispatcher. He has experience in the field as a volunteer firefighter so the training required would consist of a short course of six weeks that he was investigating at this time.

Each of the learners in the study was in a unique situation based on their previous schooling and their present situations. In terms of their past education

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[15]Fee payers pay their own tuition whereas most of Alberta Vocational College's students are on Student Finance Board grants.

some of the learners had previous experience with distance education which seemed to have an impact on their views of the characteristics of a quality learning experience.

Previous Distance Experiences

In considering the learners' responses to the questions posed concerning identifying characteristics of quality learning experiences, the issue of previous distance learning experiences was considered. In this section, responses of learners who have had previous distance learning experiences will be covered. In discussing these results, each student who had previous distance learning experiences will be considered separately.

Paul

Paul had some previous experience with distance learning in a print-based course before he became involved in the Telewriter course. At the time of the study, he was still involved in the course so his responses regarding it will be dealt with in the section of present learning responses.

Kate

Kate has had a varied experience with distance learning by taking eight print based correspondence courses and one previous Telewriter course. Seven of the eight print based distance courses were taken directly after leaving high school and were completed successfully with marks ranging from 50 to 80%. Kate said, "the only one I did horribly on was the math (50%) because of the way it was set up". She further went on to describe the situation, by stating that "they (the correspondence materials) gave examples but their examples are the question, a step, and the answer. They don't tell you how they got the step." On further

probing, she clarified with "I mean you need the steps on how they got the steps in between, I mean I had no idea how to get to that answer, it all of sudden popped up". In contrast to the math, she went on to say in other courses "science and English and everything, it was fine. In the science (correspondence course), I actually got the science kit which I still have and I could do my experiments and stuff". She felt the courses (other than math) had a textbook which she could read from, (but in math there wasn't one) but "I mean even (in) math a textbook is not really something you can learn by". In doing her correspondence courses, she felt completely in control of her time and learning and emphatically stated "(O)h yes. oh yes, actually when I was doing correspondence, . . . I was the whole time downstairs working, I came upstairs to eat and went back downstairs". In responding to the feeling of completing a correspondence course, she said "I felt great like WOO (emphasis by Kate), . . . better than at school. Because I knew it was me alone and I didn't have anybody pushing me and I just felt great." This feeling seemed to be consistent across all the correspondence courses she completed except the math where she did not feel good because " I was a very poor math student, then (in the next level math in the classroom) all of a sudden 'ching, ching', I get a 81%, go 'WOO' you know, that was great." On further discussion, Kate talked at length about the math course she got the 81% in. By contrast, she said the classroom courses were good

> because he (the instructor) gets directly to the point and that is the way I best learn, if you get directly to the point and don't sugar coat it, and don't sit there and tell little stories in between.

Kate's other print-based correspondence course was not completed due to a change in her personal situation. The Telewriter course she did in the previous term turned out well for her with a mark of 85%. She said that the Telewriter

course gave her a timetable when all of the modules were due and when the tests were so that she would have an idea how to "plan out her time."

Joyce

Joyce had taken two distance education courses previously, one by correspondence and one by Telewriter. The correspondence course was done in the term previous by working through the Alberta Distance Learning Center (ADLC) modules and then having an instructor mark at the site rather then sending them to ADLC for marking which would take longer. She obtained a mark around 80%. In the Telewriter course she did previously, she obtained a mark of 47%. On discussing the course further, Joyce said "I think it is because I don't have any kind of understanding of chemistry and it would take a lot of tutoring or something to even catch on". She felt that the Telewriter had an effect because

> (m)y belief is that for a lot of people chemistry is a tough course and to have it taught in a classroom where you can get help from the teacher when you get stuck would work a lot better then trying to read it over the screen.[16]

Eva

Eva has had some previous distance learning experience many years ago with print based correspondence but withdrew from it early on in the courses due to a change in family situation, so she had little to say about it. At the time of the study she was just starting a print-based Psychology course but "hadn't even received it yet."

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[16] More comments relating to this experience will be considered in later sections of the study.

Holly

Holly had previous experience with the Telewriter with two courses, one in each of the previous two terms. In both of her previous courses she averaged 70% although she said "I honestly think I would I would have done better if I would have been in a classroom situation". The reasons she explained were

> the Telewriter doesn't leave a lot of room for questions, you know at least specific questions or input because by the time you have a chance to give input or have the question on a certain thing (or) to ask a simple question or give a little bit of input you know it's too late, he's moved on or its just not relevant enough to do that. So . . . you remain silent, whereas in a classroom situation you know you can talk and interact and so on and, of course, there isn't that on the Telewriter.

In terms of those two previous Telewriter courses Holly felt "unsatisfied".

Isaac

Isaac has had one course via distance education, a correspondence course while he was still in high school but didn't complete it because "I'm not personally motivated enough like to do that, I need a little bit of supervision to keep me motivated". He felt the Telewriter assisted him with that need for motivation.

In the study, just over half of the learners had experiences with distance education, which seemed to give them a background with which to compare their experiences during the study. Four of the learners in the study, Norma, Bob, Dave, and Raymond had no previous experience with distance education. It also seemed that although these learners did not have previous experiences, they were able to

discuss their situations very well. The learners past learning experiences or lack of experiences did not seem to affect their ability to reflect upon their present learning situation.

Present Distance Learning Experiences

In terms of previous distance learning experiences, there were a variety of types of distance learning, as well as, a range of amounts of experiences. Learners were selected for this study, so that each person was doing one or more distance education courses using the Telewriter. Even though all the participants were taking similar courses using the Telewriter, the comments on their experiences varied - each person had his/her own unique story to tell. The following section describes the learner's experiences of how the course was going for them, how the course operated, what support was available and used, types and amount of interactions and what helped them learn best. The areas will be combined and described based on each of the learner's responses.

Paul

Paul was enrolled in one Telewriter course, two classroom courses and one print based correspondence course at the time of the study. His print-based course was going well for him and he was sending lessons in for marking at regular intervals. He also mentioned, with satisfaction, that the course also had two projects to do then be sent in to be marked which, he felt would be good learning experiences for him.

The orientation to the course and the Telewriter for Paul was done by the site coordinator,[17] Paul said it was straight forward and the site coordinator "explained exactly how to operate it and gave all the help phone numbers[18] and that's basically it". In terms of support,

> well (the site coordinator) is basically in the room with us for the most of the day everyday so, (pause) and we ask her questions and she helps us out, so I think we receive good support from her when we need it.

In Paul's case, as with the others in the study, this site coordinator was with the students constantly except for when "she does take a lunch break for 15-20 minutes, or whatever, but she's there most of the rest of the time."

Interaction with the delivering institution was mainly with the personnel at the site, such as classroom instructors and office staff and the Telewriter in instructor.[19] Other interaction occurs within the group of learners at the site and, at times, disrupts the learning "(be)cause there is a discussion going in class and it is hard to hear what the instructor is saying sometimes." Paul also talked about the high level of interaction between students in the Telewriter class at the site by saying "we help each other a quite a bit".

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[17]A site coordinator is at each site to be in charge of the Telewriter courses. Each site seems to have a different perspective on the role of the site coordinator. The duties of a site coordinator can range from taking care of everything to do with the Telewriter, getting it on line, trouble shooting, faxing assignments photocopying, providing tutoring to students and communication to the instructor to having the Telewriter as a small part of their workload.

[18]A separate phone line usually into the same room as the Telewriter to be used to get help if problems occur with the Telewriter. In addition, it may be used by the instructor to talk to specific students off line during the class.

[19]Other possible interaction for support would possible Career Development Officers (CDO) who deal with career issues and dealings with Student Finance Board, counselors, for personnel issues, nurse for health issues, Learning Support Services for learning issues

For Paul, having spent most of his previous learning time in the classroom, he compared it by saying that Telewriter does "not give as much chance to get in comments and questions".

Kate

Kate's perspective on distance learning was based on a number of successfully completed print based correspondence courses and at the time of the study taking two Telewriter courses, as well as, one classroom based course. She suggests she is doing well on each of her courses and credits it to the fact that

> I listen, to the teacher and I do my assignments and I do my homework all the time. If I have any questions I ask, I always ask questions when they have to be asked and I mean the basic thing is to listen and doing your homework, doing your assignments and reading, the big part like is the basics.

On considering feedback Kate said there was very little in her previous print based correspondence course and it consisted of "oh you did a great job and got to watch for this, they didn't really say too much, they just marked your assignment and that was it". In the Telewriter course, she felt there is more fast feedback since assignments were usually sent and returned by fax within one day. Kate also felt since she could ask questions during the class, she had better contact with the instructor although with regard to out of class time, the instructor was hard to get a hold of "since he was downtown and there is no way of getting a hold of him".

Kate's views on support were strong. She said the site coordinator "is just terrific", as well as, "there is another student in one (of the Telewriter) courses although in my other Telewriter course that the commitment of the other students is something to be desired (they) aren't the most devoted".

Kate also commented on her questioning in class by suggesting that in class she would just raise her hand but on the Telewriter "it takes more work to push the button. . . . You think about the material more, so you ask a better question and you get a better answer . . . because I have to hesitate more with the Telewriter"[20].

Dave

Dave's experience with distance education started with two Telewriter courses that he was in at the time of the study. He began his learning activities with the Telewriter with some English and math testing in the summer before entering AVC. At that time, he was told that he would probably be doing one course, (physics) using the Telewriter and his other two courses would be in the classroom. At that point, Dave knew nothing about the Telewriter, but was given a brief look at it with an explanation of how it worked. When it was explained to him, he said he had the impression that since there was a TV monitor there, he would be able to see the instructor.

At the time of the study, Dave felt he would receive marks of about 75 - 85 % in all three courses that he was taking. He felt that the two courses he was doing on the Telewriter were somewhat different in how they operated and, therefore, he was having an easier time in learning one of them and more difficulty with the other. Upon further discussion he felt that since the one course's material (the easy one) was very similar to a course he had previously taken, that the delivery had little to do with it and more to do with the familiarity with the material.

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[20] Similar comments were made by other learners in the study and will be considered later. Other students felt that this waiting was not good for them since the waiting usually resulted in them not asking the question.

In the discussion of how the course operates, Dave's explanation was similar to Paul's and Kate's. In terms of interactions, one of the issues was that it was difficult to ask a question at the time that you were

> getting lost. All you can do is type (a letter on the screen[21]) but the instructor may not see it and would continue on with the problem compared to the classroom that when your hand went up, the instructor would stop and go over the material and clarify the issue.

He also felt, at times, that the students at his site hesitated because it would interrupt the flow of the discussion and, therefore, they hesitated to ask the instructor and made more use of the site coordinator.

The site coordinator for Dave was the same person as for Paul and Kate so many of his comments was very similar. Dave, along with other students, used the site coordinator's tutoring capabilities to a large extent. Dave used her "just about every other day" for both of his Telewriter courses. Other institutional support was not used but there was some out of school interaction of the site's students on the phone discussing the Telewriter courses, as well as, other shared courses. Feedback from the instructors was for the most part, similar to classroom situations where the students received marks and comments on assignments.

In responding to what helped Dave learn best in the Telewriter course he said

> well you have to pay attention because if you don't pay attention I mean it's easy to start talking to the students

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[21]Each site had a letter or letters designated to it (for example L was Leduc) so that when one of the sites typed their letter, the instructor would stop and acknowledge the site and ask if there were any questions. The need for this method of communicating a need to ask a question is due to the Telewriter only allowing one way transmission of voice at any one time.

> beside you and its not like we have a teacher to tell us to smarten up and stuff so I find that you have to pay close personal attention.

For Dave distractions in the room included other people and things going on. Dave reiterated that for him to learn best "it's just to stay focused and pay attention and I learn that way." He also mentioned that after the Telewriter class, he needed to come home and do his homework and then "that's the way I definitely . . . learn and reinforce it."

Joyce

Joyce is unique, in this study, as she is the only person taking only one course and that course is on the Telewriter. When asked how the course operates, she said

> you just go in there and (the instructor) comes on and teaches you, and we have the site coordinator there to help us with any problems and it seems to be working better than chemistry did on the Telewriter last term.

The reasons she felt this term was better than last term were that the site coordinator was there to help and that for her math was a lot easier to learn on the Telewriter than chemistry.

In terms of orientation before the course there was "basically none, except this is the tablet, this is the screen, (and) this is how you write on it." In terms of other support from AVC, Joyce occasionally talks to the secretary but Joyce is only at the site for her class and then leaves shortly afterward. Feedback from the instructor has included only marks on assignments so far. She has interactions with the other three people in her site group but interactions with other sites has

only been playing "X and Ó's" (tic tac toe) while waiting for the instructor to come on line.

In terms of the site coordinator, Joyce compared this term's site coordinator to last term's and felt this one was far better at math than the pervious and this one is less busy with other courses, subjects and students. Overall Joyce has not used the site coordinator too much but felt "if it gets more difficult, I will be using her a lot more." For Joyce the fact that the site coordinator can explain the subject and is

> "there when you run into a problem, you don't have to wait hours for her to straighten it out, she can help you right away while it is still fresh in your mind and she is willing to help, you know' like I have a problem with a test when I go to write a test, I draw a blank so she is willing to try and get workshops set to try to help people with studying techniques and stuff".

Generally, Joyce felt this term was much better than last term for her and she continuously compared this term's experiences with her pervious term.

Bob

Bob's present learning experiences with distance education started with a short "maybe five minutes" orientation to the Telewriter which taught him "what not to touch, that's basically it". From there, he has gained confidence and operating the Telewriter is "no problem."

In terms of support, Bob mentioned there are "four teachers here (at the site) who are pretty good in math, (actually) three of them are really good at math". At the time of the interview, he hadn't used very much assistance from any of the sources, which also included a site coordinator. Since Bob is at a different site

from previous discussed learners, his comments varied somewhat in that the site coordinator was usually quite "busy with other classes, students and things". Bob, similar to previous learners, has had little contact with the instructor outside of class time. Feedback has consisted of marks on assignments and quizzes. Overall on the Telewriter course, he feels he is doing very well which is in contrast with the print-based correspondence course (Accounting), where he was having some difficulty. In fact, he explained to me "I need somebody to explain everything to me, it's harder for me to read it and understand."

Eva

Eva's description of the Telewriter course was similar to others, but was able to elaborate by saying

> it usually takes about fifteen minutes to get all organized, everybody on line and everything, sometimes more, sometimes less. Then he (the instructor) will just start discussing something that he wants to tell us about and then people ask questions and so on, and then sometimes you're given time to work.

The orientation to the Telewriter was given partially by the site coordinator "who showed us how to work it" and partly by someone over the Telewriter who "explained a little bit about it too and it wasn't very difficult catch on to. So we got it pretty well straightened out on the first day." For Eva, the course operates well except that she feels it is frustrating that when others ask questions

> (the instructor) will go on and on (about it) and you would quickly try to get into something, but you can't because he's talking in great detail about a question which is good for whoever is asking the question, but it's kind of

> awkward because . . . so it's kind of frustrating to do your work and you got to still keep that thing (the speaker) up so you can hear it.

Eva went on to mention that if she was doing her work and wanted to ask a question,

> it's distracting (because) it can take quite awhile before you can get your question answered because he's gone into quite detail with someone else first. So, it's sort of frustrating that you can't get on with your work until you talk to him.

For Eva, most of the on-site support comes from the site coordinator who is not in the class all the time but is "very helpful if you ask her for help." Other support has been from other instructors at the site, the Career Development Officer and once from a personal counselor.

Eva has had no interaction with the instructor beyond the Telewriter but is "hoping to shortly." She has spent time with another student who is in the same Telewriter course working on homework and studying at her site.

When considering what helps her learn best and she replied "I think my own studying. I don't like it (the Telewriter) at all." She feels the Telewriter is there and "you work with it but you do a lot of work on your own."

Norma

At the time of the study, Norma was taking two classroom courses and one course by Telewriter. Her experience with the Telewriter began with a "bunch of papers" explaining the Telewriter and then an orientation by the site coordinator who showed "what we should use and what buttons we shouldn't push and stuff like that." The site coordinator is in class with Norma's cohort, as well as, "up and

down between our class and this other class that's going on downstairs[22]." Norma has gotten most of her help from another instructor, at the site, who teaches math because "it's easier to understand (that classroom instructor) when I need something explained to me and (that classroom instructor) goes into more detail about it" as compared to the site coordinator who is

> very smart, believe me, but doesn't seem to be good for me . . . the way I look at it, (the site coordinator) doesn't kind of correspond (to) the people not as smart, . . . to try explaining it so other people can understand it, it's kind of hard for her, that I'm finding. Like it's hard for me to understand her cause like she'll be talking about the formulas and stuff right (which is beyond me).

Norma commented that the site coordinator and the other student in her Telewriter course do "just fine because (the other student) does know quite a bit about these formulas and stuff like that." Norma also gets help from other students who have previously taken the course or students who are now in a higher level of the course. Norma, upon questioning, has had no contact outside of class time with the instructor and the feedback to her consists of mainly marks on assignments and tests.

Holly

Holly decided her orientation to the Telewriter was good although it had been some time since she started with the Telewriter. It had been two terms since

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[22]Two courses were being delivered simultaneously to this site to two different groups of learners.

she began Telewriter courses, but she remembered that at the time no one at the site really knew anything about the Telewriter

> to them it was basically a distance learning program where you just talked into a mike and asked questions into a mike and that's basically what everybody knew. . . So at the beginning I learned as much as the site coordinator did.

Holly's view was that the Telewriter wastes a lot of time on repetition in getting sites connected and working properly, as in:

> OK, this site you have a question, well this is what you do, this is how you deal with it, OK and then for the next site, OK you have a question and this is what you do, this is how you deal with it and it doesn't, the same answer doesn't always work for each site".

For Holly, the waste of time could take up "probably a quarter to half of the time of your class" that really bothered her "always has since the beginning".

Holly explained that normal Telewriter class that she was presently involved in was basically the students doing their own work sometimes in spite of the Telewriter. She elaborated that

> when there was work to be done, a module (or unit) to do, I turned down the voice on the Telewriter . . . unless it was something important that I have to know then I listened but if it's something that's just review or if he's just answering questions and it's annoying then I just turn it down.

It seemed for Holly that the type of question and answers being discussed led to how she and the other learners operated the Telewriter. She explained that if

> someone asks him a specific question and he's addressing that question everybody else is kind of left out. It's like well OK this question is going to take him half an hour to answer so we'll turn you down and we'll do our own work.

For Holly it was not at all like a classroom situation and in her comparison she explained

> you are kind of part of the room (in the classroom) so its more easier to listen and you have input whereas sometimes there's a question asked on the Telewriter, I don't even know what the question was because my site wasn't even involved in it. So we miss out on a lot of that.

For Holly, her Telewriter course last term was somewhat different because she worked on her own, because there was no one else to interact with at the site so she basically did most of her work at home. She said "and when it came to the Telewriter if I had a question, I just asked it and the rest of the time I just listened. For Holly, this term is different since there are four people at her site in her course. She described each of the other students by saying

> there's the one person, who is a self-starter, a self-learner, who does a lot of homework at home and (another student), I was with in another course (who is) more of a spontaneous, come as you go person who's usually behind in assignments, so we do a lot of our work together on site whereas the (self learner) does most of hers at home.

Holy commented that this difference in students lead to a less close knit group compared to last terms. Last terms she had help from the student (self-learner) Holly got behind due to her children being sick at he beginning of the term.

Holly's views on support agreed with the other students with the same site coordinator, where the site coordinator is "excellent, excellent . . . (if) you have a question, she's makes time to be there for you" which Holly contrasted to last term's site coordinator. Holly believes

> that the better on-site helper you have, the better the student is going to do . . . (and the site coordinator) is a good help . . . right on top of things and it makes all the difference. It's like having a teacher.

Holly's use of the site coordinator was relatively limited up to this point, but "I know that if I really need her anytime of day (the site coordinator) is there, even weekends they said (and) . . . that's really a comfort cause last semester (it) wasn't like that at all".

Commenting on how she learns best on the Telewriter, Holly feels that discussions have helped her learn the best and also the instructor does notes and faxes them to the students. By doing that, she then reads them and studies them and it saves time

> on both parts, on (the instructor's) time and yours because when you get into writing notes on the Telewriter not everybody finishes at the same time and one site has a question then you're backed up or someone's going too fast, you scroll out and it's already erased and . . . As far as I'm concerned it is a total waste of time.

Holly summarized her comments on this section by saying "there's no way you can substitute a computer for a real teacher, you just can't do it."

Isaac

Isaac's orientation to the Telewriter consisted of the site coordinator explaining how to do the various items, such as how to write on the tablet, going to different directories by moving the pen on the tablet, scrolling and typing. Isaac feels he is rather good at operating the Telewriter since many times he is the first to class and gets his site hooked up and ready to go for the first block in the morning.

In terms of support Isaac uses the site coordinator mostly but also obtains assistance from the math instructor at the site for both math and science. Most of the help, to this point, in his courses has been from the site coordinator either during class or sometimes between the classes during the ten-minute break. Besides these two people, he has had little interaction with other instructors or students at the site or other Telewriter students outside of class. He says he is planning to "approach other sites to interact over the phone or to do point to point Telewriter conversations just by dialing one other site with the Telewriter rather than all the sites". In terms of what helps him learn the best, Isaac feels both the teacher and the site coordinator. He is able to move back and forth between the two so

> if I didn't get it with the site coordinator, I say OK I've gone through this, I didn't really get it too much, I asked the teacher (and he) can try a different approach or you know he goes through it again and reviews it so that I can click on it.

Raymond

Raymond's orientation to the Telewriter was through the site coordinator who showed him how to use all the commands. He found it was not that difficult since there was written-out instructions for him. Also included in his learning about the Telewriter was the first class in the science was devoted to practicing with the Telewriter.

From Raymond's viewpoint, the class operates as a series of steps that consist of booting up the computer, phoning into the bridge, getting on-line and then the instructor comes on and teaches. Raymond found it not much different than a regular classroom setting except for the fact that the teacher is not standing in front of the class. The only problem Raymond has with the Telewriter is its location.

> it's up in the office at the . . . campus and people walk in and out to use the phone and when your trying to listen to a mechanical voice and there's somebody talking behind you, their voice for some reason overrides the mechanical and I find myself paying more attention to the people around me. But we're working on that, I'm getting really strict about letting people in the room.

Support for Raymond is mainly through the site coordinator who "goes between us and (another class downstairs) at the same time. (Any questions) we just write them down and ask the site coordinator or we ask the instructor. But that doesn't happen very often." Other support at the site includes, the other instructors, and they are "all willing to help anybody out with whatever their having trouble with."

As with the other students in this study, most of the interaction is within the class but Raymond has phoned the Telewriter instructor outside of class time when the site coordinator was unable to answer a question. Raymond also added that the instructor was available for any phone calls, although it sometimes took many tries to contract the instructor.

In response to what has helped his learning on the Telewriter, Raymond said

> (a)ctually I wouldn't say learning on the Telewriter is easy but what makes it better is the support of the site coordinator and being able to call the instructor. . . . Personally I'd prefer to have a teacher but this way works just as well and more people get taught so I look at that as a plus.

Summary

In the preceding section, the learners' experiences at the time of the study have been detailed. The learners' own words were used to describe their experiences. Included in some of those experiences were discussions on what helped their learning. All the learners mentioned that support from others helped them in their learning. This support and help came from many sources. For most of the learners (at site where the site coordinator was available to them at all times), the site coordinator was the main source of help. Some learners at that site and at the other two sites where site coordinators were not as available, the learners used each other or went to other instructors at the site. Interaction with the instructor was usually within the class only and the learners did not seem to use the Telewriter instructor outside of class time due to the difficulty of accessing them, although two learners did contact the Telewriter instructor on the weekend

to clarify some information. Interactions between students in courses were at the most, limited to the individuals at each particular site and in the extreme case the two learners in one course at one site worked completely independent of each other.

Responsibility for Learning

The issue of responsibility for learning being the learner's is an often-discussed item in adult education. Knowles (1980) points out that learners want to have responsibility for their own learning and forms the basis of "andragogy[23]." As this study progressed, the issue of responsibility for learning seemed to surface a number of times in the discussions, and so was incorporated in the questions and learners were asked to elaborate on it. The learners all felt responsible for their learning. Some expressed it emphatically while others expressed it less directly. A number of learners felt the question did not seem reasonable since they felt all learners should be completely responsible for their learning. Following is a sample of the responses.

Paul

Paul's level of responsibility was illustrated by his comment: "well, I feel like I'm totally responsible for my learning, I take the initiative to find out what I need to know myself rather than go around asking teachers . . . so I put more weight on my own shoulders". Paul felt that the reason for taking this level of responsibility was that "I have lived alone now for ten years so you know that's how I have done things so that the way I am used to it."

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[23] The art and science of helping adults learn, similar in scope to pedagogy for children.

Kate

Kate's comments were similar to Paul's in saying, "I'm totally responsible for my learning". Kate's discussion of what she liked in learning included classroom teaching and she said she liked it when "he (the instructor) gets directly to the point and that is the way I best learn, if (the instructor) gets directly to the point, . . . doesn't sugarcoat it or sit there and tell stories in between". Kate also felt that if the teaching was not happening, as she wanted it, it was up to her to tell the instructor since she was in control of her learning.

Dave

Dave felt "very responsible" for his learning since in his view it was harder to learn on the Telewriter than in the classroom since the instructor cannot see when student is having difficulties so more responsibility is on the student to do what needs to be done.

Joyce

Joyce felt everybody should be responsible for their learning and that the Telewriter increases that level of responsibility since you print out the assignments you want to do and

> you're expected to do them and you don't have to hand them in or prove to anybody that you have done them (whereas) in a classroom environment you are always risking the chance of the teacher saying "well hand in your stuff now."

She explained if you "don't do what you need to do" you will "pay the price" because you are not understanding the material that is required for the course.

Bob

Bob felt similar to others that the responsibility for learning is his and he must operate differently with the Telewriter where "I try not to miss and try to be on time cause I know how slow the process is and if you miss something you can't ask somebody else during the class . . . without interrupting the class." He also said he tends to hesitate longer to ask a question so not to interrupt the whole process. He also said "couple of times I tried to press the button then somebody else is asking at the same time so you can only hear one person." He felt he should be more aggressive in the future in asking questions.

Eva

Eva felt she is very responsible for her learning and that "if I don't do it. nobody's going to do it for me." She also added she has had "a number of personal problems" since she entered AVC so that it was very difficult for her to concentrate on school with everything else going on in her life now but she believed she must since she is in control of her learning.

Norma

Norma felt that she needed to do two things in terms of her responsibility for her learning. The first, was she needs to learn the material on her own and secondly if she doesn't understand she needs to "seek help" to try to understand. This seemed to be something she wanted to implement in the future.

Holly

Holly's response to level of responsibility was "100%." She went on to say

I mean you know especially with the Telewriter you have to put out that much more so what you could get away with in the classroom is not applicable to the Telewriter. (In the classroom) you know the teacher's helping you out and that's what's getting me through basically but on the Telewriter you can't go that way. It has to be all or none because (if) you miss something, you're screwed. You know there's no turning back cause if you turn back you're turning the whole class back, all the sites and then that just turns into a nightmare.

Isaac

The level of responsibility for Isaac was summed up as "what you get out of it is what you put in, like you pay more attention you learn more." He elaborated by saying "a lot of people blame the teachers for this or that, in my entire school (time) I've ran into one bad teacher and I don't know if that was just me and him personally cause other people said he was just fine though the majority agreed with me". This comment seemed to demonstrate a good understanding of his level of commitment.

Raymond

Raymond emphasized that besides his "kids and family," school was the main priority and all his efforts needed to go into it and it was his responsibility to do well.

Summary

The preceding comments demonstrate that the learners felt that the learning was up to them and that they were responsible for how well they did.

Specific Learning Experiences

The learners in this study are each unique and therefore their experiences are unique to them. From those experiences and their learning background, students form opinions regarding the learning experience. The following sections will report the data collected on learners' specific experiences with the Telewriter courses and also share their feelings, reflections and ideas. The learners also presented possible changes that they felt would make their future learning experiences of higher quality.

Learners' experiences varied in this learning situation depending on the student and their feelings about the current situation. The process of questioning during the interviews was used to consider areas, which were liked, and areas which were disliked, and to probe deeper into incidents, which would illustrate various issues. Each learner will be considered in turn.

Paul

Paul's view on learning using the Telewriter, on the overall tended to be positive, although " I've always been used to classroom learning, so you know it (the Telewriter) is not my favorite way to learn." The physical space was also a concern since the Telewriter was physically located in a relatively small room in the basement of the site building where "we (four students and site coordinator) don't have much room at all . . . to spread our books out and make ourselves comfortable". He felt that he needed conditions that were right for learning which

for him were no distractions both in terms of space and other people entering and leaving the room.

Paul also discussed a situation where he felt too much time was spent on a topic because he already knew it from a previous course, but accepted the time spent since he felt when "I get into concepts that are hard to understand I would prefer that the instructor spent more time on it."

Kate

Kate described a situation that was not helpful to her learning as too much material was crammed on the screen (of the Telewriter) especially if there is an equation on the screen and she suggested to the instructor "to use the whole screen (rather than) cram everything into one corner." She also went on to talk of one instructor who she said is a terrible writer and if he types, it takes half the course to type, half the class. She felt this was not a good use of her time and her learning was suffering from it.

Dave

Dave responded that no one experience seemed to leap out at him in response to a situation which the Telewriter where he really learned. In terms of times when he had negative learning experiences, he discussed when in the first few days of the courses "they didn't have the Telewriter linked up properly". Although he felt, at the time of the interview, that most of the "kinks (were) ironed out".

Joyce

Joyce felt that there wasn't any one example when she had particularly positive learning experiences. However, in terms of negative learning situations,

she suggested "(o)h I had a lot of those last year with my Telewriter course. Not understanding and so many people at so many sites, you couldn't get time to ask a question cause somebody was either always writing or always talking and it was really hard to get any questions in." She felt "she didn't get any help last year" and "it was really frustrating." Other issues of concern to Joyce were that there was no help available, the site coordinator tried to help her, when she "had a chance to help or when she understood" but that didn't seem to help. The teacher was really hard to access when "we were trying to get a hold of him, it was really hard, too." Joyce said in this term doing math hasn't been a concern and suggested maybe because there are not as many people and this term there were less problems with the Telewriter. In addition, she senses that she has retained much of the math in her mind from last term.

Bob

Bob's views on specific learning experiences varied from what he had done before the study and what he was working on at the time of the study. Bob felt that learning factoring (in math) was a positive experience but that the material being taken at the time of the study was harder to understand and would like it if there were "somebody (a teacher) here (at the site) that could explain it to me better." His description suggested that his understanding would be greater if there was the face to face contact.

Eva

Eva also felt similar to Bob, in terms that an instructor in a classroom would be better for her, because as she said

> I'm just used to teachers and you can go up to them after class and write things down and sort of see it that really

> helps me. And if I can actually see it and do it in front of someone then I seem to grasp it better.

Eva felt very frustrated because she wanted to be able to look at instructor and talk to them and she believed that would help her understanding.

In addition, she felt with the Telewriter instructor, she could not cut in whenever she wanted because she felt she was then holding everyone up. Eva also found that a number of times other sites would miss what was being said on the Telewriter and would ask the same question as someone else had previously or ask the instructor to repeat an assignment. This repetition bothered Eva because she felt that sometimes the other sites were not paying attention or were away from the Telewriter. She felt it wasted valuable time, sometimes up to "twenty minutes." Being aware of the need to "be listening and paying attention in case the instructor does say something that's important you waste that time where you could actually be concentrating on your work and actually doing something."

Norma

Norma's response to what has helped her learn best was: "right now not too much," and went on to further explain "we don't really use it (Telewriter) too much. Like we listen to the instructor (and) that's basically what we do." She felt that she learns very little from the whole Telewriter experience and more from people she talks to. For her, the location is an issue since the Telewriter was in the office where

> we've got students walking in and out constantly (to use the phone) . . . until we stuck the phone outside the room and locked the door. We did that because we couldn't hear the instructor and if you only pick up half the conversation well then you're lost.

Holly

Holly's example of a negative experience is that when there is something she's really interested in and "I'm trying to listen and they got two other people at the site and . . . they're sitting there blabbing, blabbing, blabbing and I'm trying to get everything out of what the teacher is saying" and she is distracted. Holly went on to say that she has also done it (the blabbing) and it's really hard to concentrate. Other things that have frustrated Holly's learning are equipment issues. With communication problems, Holly suggests that

> 95% of the time it's an equipment thing and if one Telewriter site) breaks down and loses that site . . . then everybody else has to wait till they get back on and it's a total waste of time.

She went onto describe situations where the instructor was in the middle of a concept and had to repeat it all once all the sites were connected again. For Holly, this was a frustrating situation waiting for the instructor to get back to the point where contact was lost for a site.

Isaac

Isaac, in response to a specific example of a positive learning experience, liked the idea that for science the Telewriter was able to show pictures (slides) of various concepts and items which he said "I'm more (of) a picture (learner), I'm more a visual learner, pictures stay with me a lot clearer." For Isaac, the ability to see pictures was a big positive and he did not have any negative points with the Telewriter except he did miss having another student at the site in one of the Telewriter courses since he was the only one in courses at his site.

Raymond

Raymond provided a specific example of when he had a positive learning experience, and it was where all the notes are written on the screen and "you can see it and taking notes is a lot easier than trying to follow vocally so for me that makes it a lot easier." Raymond went on to say that he felt he was a poor writer and speller and not very fast at writing notes. So for him the written screen notes makes it easier and better. His negative experience dealt with the Telewriter being in the office and, at times, others would come into the room to make phone calls or to talk to the secretary.

Summary

It seems that each student had different characteristics that made their learning experiences either positive or negative. Although most of the learners were not able to describe a specific positive experience, there were two positive experiences described which dealt with the graphics part of the Telewriter. These were; having the notes written on the screen which made it easier for the learner to copy them down and learners being able to see slides that illustrated concepts as they were being discussed.

In terms of negative experiences, many dealt with the waste of the learners' time. Learners felt their time was wasted while the instructor was helping to get sites connected or deal with technology problems, as well as waiting while a concept was being explained to one site because they had missed it due to equipment problems or they were not paying attention. The physical setting of the Telewriter at the sites also produced negative experiences for some learners who felt they did not have enough space to learn properly and distractions kept occurring. On each of the items probing was done to gain an understanding of

how the learners felt about their learning and any possible changes they would make.

Learners' Advice to Others and Possible Changes

On discussing the learners' experiences deeper, they were able to explain characteristics that were of importance to them and what they valued in the learning experience. In order to obtain characteristics that were beyond what the learners had experienced, the learners were asked to be speculative and that was framed by saying "how would you change your distance learning so that it would be the ideal or the best possible educational experience for you?" Also in this section, I have included the learners' responses to what they would give as advice to others contemplating taking a Telewriter course, and ideas for learners already in Telewriter courses and asking for advice on how to do better. As in previous sections, each learner will be considered in turn.

Paul

Overall, Paul felt the experience was good and included some ideas for making the Telewriter situation better. His comments centered on the physical setting where he suggested a bigger room where he and other learners could "spread out your books and really get into it." Included in the ideas, was a reiteration of his earlier comments that less distractions would make it more ideal for him to learn. These distractions focused on others entering the Telewriter room and also students in the Telewriter courses not wanting to be there and disrupting his concentration.

Kate

Kate agreed with Paul's view that the Telewriter worked all right for her learning as long as she continued to work hard. This led directly to her advice to all new students on the Telewriter: "if you do your assignments in the modules and take notes and write definitions, that's a big part of it and you'll do fine." She summarized that if you took the initiative and had control of your learning and did what was needed, you would do well.

Dave

When asked for his overall impression of distance learning, Dave felt it was "OK" for him, and he didn't have any problem with it, but "I know that if I were in a classroom situation, it'd be a lot better for myself". He added that it would be a lot better learning with "an actual teacher versus the Telewriter." In terms of importance to him, when learning on the Telewriter it was necessary "to pay attention, the most important thing and then I will learn with the Telewriter." In responding to what would make it an ideal or the best experience for him, Dave responded that the site coordinator should have a blackboard in the Telewriter room so that "things could be explained during the class rather after class." On probing whether that would take away from the class and the Telewriter, he suggested the site coordinator is "pretty quick and does things very quickly so your attention is going to be taken away from the Telewriter, yes, but then you would know what is going on."

For improvements, Dave wanted to have a video link to be able to see the instructor at the blackboard, which ties directly back to when he was being oriented to the Telewriter and he believed then that he would be able to see the instructor. He felt it would "improve the system 100%, so it would actually be like

a student sitting in class." In conclusion, he said, "I feel that the classroom with a teacher is a learning tool. I feel this (the Telewriter) is a step below but not that far below but overall it's OK, it's working for myself and I'm learning so it's an OK system."

Joyce

Joyce felt that her experiences with the Telewriter cover both ends of the spectrum, last term her experience was very negative and this term it was much better. The reasons, she suggested for last term being less than positive, were "there was no one here to help me get through all the struggles I went through." Also, she felt that having someone who could explain the material in a different way would have helped. Joyce summed up her experiences with Telewriter between the terms by saying "I hated it last year but it is not so bad this year."

In response to what advice she would give to others contemplating taking a Telewriter course she said "I would say well that depends on what course you are taking, if it's chemistry, don't" and she felt this is not because of support but because she had such a negative experience she and others at her site have had. She went on that say the marks in the course were in the 40's since the course was offered through the Telewriter and you have to move through the course so fast.

Bob

Bob's overall feeling is that the Telewriter is slower and it takes longer to get a point across and that it is hard to ask a question. His response to what you would say to someone thinking of taking a Telewriter course, would be "(i)t's a lot of hard work, like you have to study more because the class goes so fast, faster than a classroom". Other comments from Bob seemed to contradict this when he said if he could change anything it would be to increase the speed of the class

because it takes forever for the class to go through a topic". On elaboration, he would like more time for the course but to be able to go through topics quicker. He felt the Telewriter made it slower to go through topics and "even like the screen if you could see (the instructor) on the screen standing in front of a chalk board that would be ideal instead of just writing on the screen."

Eva

Eva's views on the Telewriter are that since most of her learning was from her own studying and reading over her notes, modules and textbook, were that the Telewriter was not adding to her learning. She summed up her feelings about the Telewriter by saying, "I don't find it to be a great way to learn but that's the only choice I have at the moment." She would rather have the time to just work by herself on print-based correspondence materials and then have someone to help her with the areas she was having difficulty with.

In response to what would make the Telewriter a more effective method of learning, Eva felt that being able to see the instructor working on the blackboard would "seem clearer when you can see someone explaining something . . . it would seem more personal too." Her reasoning for wanting to see the instructor was "(b)ecause that is what I'm used to." In discussing the aspect of seeing the instructor, she felt it important for her but there was no reason for the instructor to see the class. With further discussion, she felt it may be good for the instructor to see the learners at their sites since she related the idea to the classroom where the instructor can very quickly sense that you may not be understanding and that something needs to be done. From this direction, Eva also suggested videos may be a good idea since then the teacher could be seen and the student could go forward and back on the video as they needed to assist their learning.

On the matter of choice, Eva added to the discussion by saying that if she had the choice she would "rather do it (her course) in the classroom, my next choice would be to do it by correspondence (but) it is so impersonal and if it's going to be that impersonal I'd rather do it on my own and . . . I would want someone to go to and ask when things got confusing and (needed help to) sort out details and things." Eva suggested her feelings about the Telewriter started on the first day when "he (the instructor) introduced himself to us and this is what I look like[24] and before he even did that I wondered what (does) this guy look like?" She strongly felt that for her, seeing the person's face[25] would help her attention and therefore help her learning.

Eva's general comments on the whole experience were "I`m glad that I have the choice (rather) than no choice, you know, it`s definitely better than nothing, or better than having to drive a long distance to go to school, it`s really handy and I`m glad I do have a choice."

Norma

Norma explained that she may not be the best person to discuss distance education with since she just "recently started listening to him (the instructor)." Norma felt that to help her learn better she'd like to be able to see more of the items in the chemistry course such as the chemicals and also be able to touch them to gain a better sense of them. She also mentioned that in the Telewriter class she was more nervous than in a regular classroom, "I don't know why, it's a machine

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[24]Slides have been made up for the Telewriter of each of the instructor's pictures.

[25] Eva looked forward to the upcoming lab day since it would give her the opportunity to see the instructor and other students in her course. She felt that would help her learning on the Telewriter.

right. I don't want to break it." She felt that she has learned that "I need to touch things (to learn) but at the same time I'm scared to touch that machine" which cuts down on the amount she responds and asks questions on the Telewriter.

Norma liked the fact that the instructor wrote reminders on the screen to help them remember items since she writes them into her book that helps her learn. She also said "on that speaker thing if somebody is explaining something I lose track of where they're at and stuff like that because I can't see a face to this voice." She felt she needed to see the face in order to "keep my concentration there. Cause I have a very wandering mind." Norma felt she needed to see more pictures of the chemicals the instructor was talking about in order to understand better. For an example, she said a picture of "carbon and oxygen coming together." She felt then the next time the class was talking about it, then I would see the picture. Norma was quite excited about the lab day coming up where she would be able to touch, feel and see the chemical reactions and get the pictures in her mind that she needed to help her learning.

Holly

Holly noted that she has changed her style of learning due to the use of the Telewriter. Holly, as a result of using the Telewriter, is doing more work at home because "I know that when I get to class my issues aren't necessarily going to be attended to so I really have to put a lot more effort into it than I would say if I'd been in a classroom situation." Holly continued by discussing choices. If given the choice, Holly would rather be in the classroom where she felt there would be a better chance that there would be a teacher "that cared enough to be there an extra period 'cause I like to go and get extra help during other periods so a teacher (has to be) willing to go the distance and be there for extra periods."

Holly's advice to other students regarding learning using the Telewriter was

> if you have to take a Telewriter course, if you absolutely have to, that the majority of your work . . . is gonna have to be done on your own or with the other people in your class. Don't depend on the Telewriter because the teacher, it just won't happen, it just can't. It doesn't matter if it's the best teacher in the world; it's not that, it's the system. It really is.

To make it the best possible learning system for Holly, she wants the Telewriter system to be better so that "all the quirks at each site (would cause) no problems. That would basically make the Telewriter 100% better."

Holly noted that lab days were positive but felt that the low number of times was not reasonable. She said "I mean twice a semester that's nothing, cause I learn 100% more hands on than by reading or listening" so she would like more opportunity to do the labs.

Isaac

Isaac compared his Telewriter experience to his other distance learning experience, (an uncompleted correspondence course worked on five years ago). and said

> well this experience is much better than my last experience because with the teacher coming on a regular basis (and) going through some of the stuff you don't understand.

The timeliness of going over material was a benefit to Isaac, since the correspondence course sometimes took up to three weeks to receive feedback and be able to ask questions.

In terms of what is of greatest importance, Isaac felt one of the best things about is that there is more emphasis on him. That the learner either learns it or not. He felt there's much more emphasis put on the individual to do the work.

In order to make the Telewriter better for Isaac, he suggested that the instructor spend a week or two instructing from each site. In response to general comments about the Telewriter, Isaac said "(o)verall I like the telecourse. You know overall it's pretty good."

Raymond

Raymond had mixed general feelings about the Telewriter. He felt for some people it's probably the best thing there is, but for him he believes hands on works best for him. He said the Telewriter was easy for him because

> everything's written down so you can follow it better but I would still like to see if there was some way that they could . . . do an experiment over it (the Telewriter) where everybody saw it, where they mix the chemicals and we see the reactions and stuff like that.

Raymond went on to say "that would improve it a lot but other than that, it's a good system of learning. I can see how it would help a lot of people and it does. it gets it out to more people at once." In terms of what made it easy to learn Raymond re-iterated an earlier statement that the instructor writes down everything that the students should be writing down. He found it easier to follow along since he feels he is a "very slow writer" he would "scribble" and lose words. With the Telewriter, he can take more time to write it down.

Raymond went on to explain that he is learning more than just the content in the Telewriter class. He feels he is learning some learning skills such as note taking and summarizing to help him. He feels that "I guess I'm gonna learn taking

notes and stuff like that but with me right now, the way he (the instructor) does it is just perfect because I don't have study habits and I don't know how to take notes and things". To illustrate, Raymond mentioned that the instructor can talk for five minutes but there is only two lines of notes that the instructor writes down. For Raymond, the instructor is making it easier to pick out his highlights which in turn is makes it easier to listen to other instructors and pick out the main points. Raymond also mentioned voice changes as a way of telling what is important. He felt he had learned that through using the Telewriter, as well as, "I'm good at people with driving taxi for almost 18 years you catch little differences when people are talking."

For Raymond more lab days would be beneficial if they were at the site rather than having to go to Edmonton which meant making a number of arrangements for travel and only resulted in a "short time of actual lab time" whereas he felt the labs could be done at the site with the site coordinator either during class or "Wednesdays when we have an hour off". He went on to say, "seeing things gives a clearer understanding." This would allow the site to do more labs and also provide the hands on learning that other learners already spoke about.

Raymond's overall comments on the Telewriter was "for some people it would be really, really good but for me it's really good cause it's helping me learn not only science but study habits (and) note taking."

Summary

In the preceding section, of text, the learners' advice to others was explored and learners supplied ideas to make learning better for them. Learners' advice to others included the suggestion that in order to do well, the learners needed to do more work outside of the Telewriter class, take more responsibility for their

learning and be in control of their learning. In terms of changes, that the learners felt would make their learning better, the respondents focused on the physical setting, the need for more "face-to-face" contact and more hands-on experiences.

The learners suggested more room for learning while they are at the Telewriter and to make sure that students learning on the Telewriter have minimal disruptions. Learners also suggested that face-to-face contact either through video hookup or even better with actual contact through lab days and the instructor teaching from each site. As part of this idea, learners wanted more hands-on activities in terms of labs at a central location or small labs that could be done under direction of the instructor over the Telewriter or be done at the site with the help of the site coordinator.

The first part of the chapter discussed the data that came out of the individual interviews and group interview with the distance learners in this study. That section considered the individuals' responses to specific questions and their reflections on their experiences in learning with the Telewriter. It also compiled general information about the context of the learning, the history of AVC, its distance learning programs, the typical AVC-E learner and descriptions of typical Telewriter classes.

The next section dealt with the individual learners and their experiences. This included snapshots of each learner, their learning experiences in distance education, both previous and at the time of the study, the level of responsibility each felt for their learning and their evaluation and opinions of their learning experiences, which included specific experiences and reflections. All the learners did not have experiences under each category but when the data are considered, a number of themes emerge. An understanding of these themes provides insight into the learning experiences for these distance learners.

Themes Emerging

The themes that emerged in this study can be separated into the following areas: diversity of learners and their experiences, the learners' responsibility for their education, and the learners' adaptability. Each of these themes will be explored separately.

Diversity of Learners' Experiences

Even though the learners in this study were all taking courses using the Telewriter, their diversity of experiences became evident very early on in the study. Much of the learners' feelings about their learning experiences on the Telewriter seemed to flow from their previous learning experiences. For some, the Telewriter experience was an unfulfilling experience where interruptions from others, equipment breakdowns, inability to access the instructor and little site support made them feel like they were getting less than ideal learning situation. In contrast, others felt it was a good experience and that any problems were just issues to work around and to be dealt with. These students felt the Telewriter added to their learning. It seemed that many of the experiences with the Telewriter were seen through the context of previous learning experiences. Therefore, depending on the feelings about those experiences, then this learning experience was either better or worse.

Responsibility to Learning

With all the learners studied, it seemed that each felt a high level of responsibility to learning and doing well in the courses taken. This may be because each was under some pressure to pass the courses or they would loose their funding. Many of the learners were in school not by choice but as a step

away from being on Social Assistance or being in a low paying job with limited future. When faced with these situations it would seem that learners might not be that interested in learning. This was illustrated many of the learners' comments of level of responsibility such as "100%" and the comments of "if I don't do it no one will do it for me.".

Learners' Adaptability

Flowing from the learners' commitment, it seemed that the learners adapted to the "new" way of learning very well. The learners overall seemed to be able to adapt to the learning situations as they developed whether they were physical setting problems, support issues or instructional issues. For example, one site whose room also had a phone for the use of other students in the room, lengthened the cord and placed it outside of the door then locked the door. Another was unable to obtain assistance in understanding with the site coordinator, so accessed other instructors at the site (who could explain things better). In regard to the instruction, some students felt that the length of answers to certain questions were too long and not relevant, so the learners turned down the Telewriter and worked on their own.

The themes that flowed from the data seemed to show that although the learners had diverse backgrounds, they all felt a high level of responsibility to their education and were able to adapt to the learning situation that consisted of learning on the Telewriter.

Characteristics of Quality Learning Experiences

In this section, the learner identified characteristics of quality learning experiences using the Telewriter will be described. It must be noted that this study was done with a small group of learners using a particular type of technology, so

many of the comments are unique to that method of delivery. These characteristics form a part of the core of the study and will be listed below. The characteristics seem to group into characteristics of the course, the physical setting, the method of delivery, the instructor, and the learner support.

The Course

The learners in their discussions and answers to questions felt that the Telewriter courses needed to accommodate them and allow them choices regarding how they went about learning it. Specifically, the characteristics they felt made a quality course was:

- The learner needs to be able to choose the level of involvement with the Telewriter and others in the course.
- The course needs to have relevant materials suited to the level of the students.
- The course needs to have additional resources available to the learners in terms of texts, videos, and lab materials.
- The course needs to lead to the goal of the learner.
- The course must include not only content but also assistance in helping the learner to become a better learner through instruction and modeling of learning strategies.

The Physical Setting

Learners in this study felt that the physical setting must be conducive to learning and listed the following characteristics of a quality learning situation.

- The Telewriter area must be free from distractions and interference.
- The room must be adequate in temperature and circulation.
- The room must be large enough for a learner to spread out materials and be comfortable.

- There must be room to easily access the Telewriter by each of the learners.

Method of Delivery

In this study, the learners seemed to be able to adapt to the Telewriter although they felt that the method of delivery should be secondary to the teaching learning process and therefore suggested the following characteristics:

- The method of delivery should be transparent so the focus is on the learning and not on the equipment.
- Any problems with the Telewriter need to be dealt with outside of the course.

The Instructor

In terms of the instructor, the learners felt the characteristics of a quality course were good quality instruction and gave specific characteristics they felt were needed.

- The instructor needs to be adaptable to various learning styles.
- The instructor should provide help at the time it is needed.
- The instructor should assist learners to become more independent learners.
- The instructor should provide feedback beyond just marking of assignments, labs, and tests.
- The instructor should provide feedback not only on content but also on the actual use of the delivery system.
- The instructor should ask for and encourage feedback on the delivery system, as well as the instruction.

Learner Support

Learner support was identified a number of times as a characteristic of a quality learning situation. Much of the support considered may not have been used but the knowledge that it was available was crucial for the learners. Some of the specific items included the following:

- The on site coordinator should act as a tutor to clear up any problems in term of the course content.
- The on site coordinator needs to be available and knowledgeable about the delivery system.
- The site coordinator must be able to help students in developing strategies to help their learning.
- Learner support needs to include support for students with issues beyond course content and be available to the learner as needed.

Learners' Recommendations

In determining the characteristics of a quality learning experiences the learners seemed to evaluate what was presently being done and comment on the effectiveness for them. This study wanted to go beyond only considering what was already being done and consider other possibilities beyond the present situation. This was done by asking learners how to make the learning experience into an ideal experience. In the individual interviews and also in the small group interviews, the learners were asked and assisted to disregard constraints such as time, space and, of course, money limits and suggests what might make it an ideal

learning experience. The small group interviews were especially good. since learners built upon other's ideas.[26]

The ideas for a more ideal learning experience therefore range from slight modifications to the present use of the Telewriter to radical changes to the overall learning process. The ideas were very random, but have been grouped into ideas relating to modifications of the present Telewriter situation, different methods of delivery and the ability of students to have choices.

Modifications of the present Telewriter situation

The ideas that came forth in this area were ways to have fewer distractions for the learner. The ideas included each learner having his/her own set of headphones with an individual microphone for easier access. One learner suggested "why not individual rooms for each person" to cut down distractions from others and then they would have space to set all their books and materials while engaged in their learning. Also suggested was that the student do the course from home since all it needed was a phone line which most of the learners have. They would also be able to phone a help line for tutorial help.

Methods of Delivery

Another area that comments were received was the idea of different methods of delivery or adding video to the Telewriter. Many learners brought this up and felt for them that seeing the instructor would help in their learning. Another felt "why not video tape the instructor, send it out and we could watch it,

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[26]The intent was to follow brainstorming principles where all ideas were recorded without evaluation, so they could be presented in this thesis for others to see.

rewind it and go over it as needed." It seemed many of the learners wanted to be able to move from one method of learning to another.

The students who felt they might prefer other methods of delivery wanted to have the ability to choose their method. Suggestions were to do labs using video connections, work on their own for most of the learning, do group work and explanations over the Telewriter, as well as, have a good site coordinator at the site. The idea of choices came up with one learner who said "let me do (print based) correspondence and give me someone to help me when I get struck and I'll do my work at home."

Learning Choices

Some ideas were discussed that could be applied to any method of delivery. One suggestion was to have better reference materials at the sites since some people had little access to the public library and many of the libraries that were accessible did not have books on topics needed. Following from the idea of reference materials, some learners suggested more resources at the site to do labs with or materials available to take home to work with. In one course, they said there seemed to be an emphasis on what you could use at home to do several of the labs and activities and that would be good for all the courses. A number of comments echoed this by saying opportunities for more hands on material and activities.

Learners felt it would be beneficial for the instructor to instruct from each of the sites, so they would be familiar with the sites and also with the students. This they felt would assist them in knowing the instructor better and be less resistant to asking questions and calling the instructor. Added to this was that while the instructor was at the site, they could do labs with the students.

There was a discussion among the learners with regard to the courses being able to adapt to the students' out of school commitments. They felt timelines could be more flexible to accommodate situations where students were ahead and also if they were behind to be able to learn the material before they were tested on it.

Many of the students felt that until they were in the course, they had no idea how it operated and what was expected of them. Several of the learners offered to do orientations for newcomers so that the new learners would know what to expect and also have a sense of what was required in doing a Telewriter or any other course. Some commented that after they were in their present course they talked to others who had taken distance learning and now knew more about what was going on than they did previously.

Summary

This chapter has laid out the responses given to the various questions asked in the study, as well as, listing the characteristics of a quality learning experience as laid out by the learners in this study. The chapter ended with a listing of learners' ideas on how their experience could be made better. The next chapter will summarize the research, give some recommendations for various stakeholders in distance education and give some reflections of the researcher.

Chapter V Summary and Reflections

This last chapter of the thesis summarizes the study. It also provides some implications and recommendations for practice for distance educators and some ideas for further research. As well, the chapter includes some personal reflections on my experience doing the study.

Summary

Distance education in Alberta and around the world has gained attention in the last few years and has been the center of many discussions. Distance education, in its many forms is being touted as a solution to many educational situations. Although distance education has been used in the past, now as technology is being developed and the costs decrease, more and more institutions are using this technology to deliver programs to people who otherwise may not have had access. In distance education, as in all education, there should be an emphasis on the learner.

If we want a quality learner-centered experience for the learner, we must go to the learners and ask them the questions about their learning experiences. In this research the intent was to obtain a better sense of what learners consider are characteristics of a quality distance learning experience. In reviewing the literature, some information was found but mostly it considered the results of various delivery methods and looked for significant differences in the level of learning between methods. Other literature considered the typical distance learners, their motivations and feelings about distance education. My study

wanted to consider the uniqueness of individual learners and explore with them what they felt made a quality course and also speculate what might make a distance education learning experience better for them. The research question that guided the study was "What are the learner identified characteristics of quality learning experiences using the Telewriter?" A number of areas were explored with the participants including learner support, materials, interaction, and learners' backgrounds.

The research followed a qualitative methodology where data were collected from ten participants using a demographic questionnaire, individual interviews and small group interviews, as well as, field notes (journal) by the researcher. The participants were self selected volunteers from approximately sixty students taking Alberta High School credit courses using the Telewriter (audio-graphics) as the primary means of communication with the instructor. These ten learners were from three sites out of the possible ten sites. The self-selection seemed to depend on how the site coordinator promoted the research to the learners.

The questionnaire obtained information and provided a profile of the learner regarding the participants' situation at the time of the study, as well as, career goal and contact numbers and times. The individual interview focused on understanding the learner and their distance learning experiences and went into depth by investigating what the learners valued in distance learning and also, how they make the experience better quality for themselves. The interviews were done informally using a semi-structured approach. The telephone was used to connect the researcher and the participant. The telephone helped to overcome the distance to the learners and also allowed to access them at convenient times based on their other commitments to school, family and work.

The interview consisted of three sections. The first section consisted of the participant's situation before entering AVC-E, their present situation at AVC-E and

the participant's plans for the future. The second section of the interview asked about the participant's distance learning experiences. The third section covered the participant's opinions and evaluations of their distance learning experiences. Within each of the sections of their interview, learners were asked to describe experiences, critical incidents, and answer in depth reflective questions. With the data collected from the individual interviews, the small group interviews were conducted. The small group interviews were designed to allow feedback and validation of data collected, as well as, to assist the learners to build on others' ideas and to make additional comments beyond their own responses and experiences when they heard what other people had to say. The small group interviews were facilitated by working from a script of questions. The small group interviews were also done using the telephone and doing audio-conferencing. The conferencing was able to link up learners who were at home as well as learners at the sites. Throughout the research, the researcher made field notes in a journal style that recorded thoughts, feelings, insights, and reflections. The field notes also help in the analysis of the data.

The data were continuously analyzed during collection. This assisted the development and refinement of later interview questions. Analysis then continued as more data were collected to understand themes and characteristics. This process followed Spradley's (1979) process called domain analysis and was assisted by the use of the computer doing word searches and tabulations of various terms and concepts. This allowed for grouping of data to see trends as well as the items that stood alone. As the analysis was being done, the themes and characteristics were taken back to the participants to ensure that their views were indeed being obtained and the interpretations was accurate.

The data collected on characteristics of quality learning experiences show three themes: the diversity of learners and their experiences, the learners'

commitment to their education, and the learners' adaptability. Also from the study a number of learner identified characteristics of a quality learning experience were collected. They were grouped in the areas of characteristics of the course, the physical setting, the method of delivery, the instruction, and the learner support.

Implications for Practice

This study has provided a better understanding of what learners consider are characteristics of a quality learning experience for them. In other words, what makes or helps make the experience good for them. Being aware of what makes the experience good for the learners (in this study) will help other learners, institutions and instructors develop learner-centered programs and courses that are of high quality and meet the needs of learners.

The study's findings will be addressed in terms of implications for learners, institutions, and instructors.

For Learners

As in this study and others, distance learners come to the learning situation with diverse backgrounds. This diversity can be in level of education, family commitments, ability to learn through distance education and motivation level. In most distance learning situations, a number of these are taken into account and the course is set up to hopefully meet the needs of the learners. Learners enter a courser or program with a set of expectations that they may have to modify as time goes on. For the learner entering or thinking about entering a distance education course this study and its findings has implications and suggestions.

The learner needs to be aware of what they are getting into, since once enrolled, it may be difficult to withdraw without some form of penalty in terms of

goal change, loss of funding or some loss of self-esteem. Therefore, the collection of information previous to entering the course or program is crucial. This can be done by talking to previous learners and the institution or reading materials about distance learning. This helps the learner prepare for the challenge of distance learning. In the case of the Telewriter, it means being more verbal through a piece of technology. It may mean participating more in the learning process to get their needs met. The learner is essentially invisible to the instructor so any lack of understanding or need for clarification needs to be communicated to the instructor or the site coordinator. For many students enrolled in distance courses, most, if not all their previous learning experiences were in the classroom where a quizzical look or a frowned expression would alert the instructor to ask questions and clarify any misunderstanding.

With the extra work required, the learner needs to be a fairly independent learner, who can read and digest quantities of material and understand the main points. It may require the learner to seek assistance of learning not only the content but leaning strategies on how to learn more effectively, in other words become a better learner. As part of this being a better learner, the students need to develop a good understanding of how they learn best. This understanding of learning styles would help the learner sense the style being used and how they can best accommodate it to their learning style. If that is not working as they monitor their progress, then they need to ask or maybe even demand a style that is more effective for them.

Underlying the implications for learners is the issue of motivation, and whether or not the learner is ready for a distance learning course or program. It is definitely the learners' responsibility to know what they are going into and be aware what is needed. However, much of the information about the courses or

program is not known by the prospective learners and therefore must be a part of what the institution does to assist the learners.

For the Institution

Distance learning in most cases operates within the context of an institution and therefore the implications of this study are very important. While learners have some control on their learning, the institutions has a large part to play in determining the circumstances in which the learning occurs. Generally it must be acknowledged, that technology is a tool that requires support for the initial learning curve so that it can be used for learning course content. This usually involves a large initial investment of time and money, as well as, ongoing support. This seems to contradict the needs of the institution since they want to develop distance courses as soon as they see a need. From seeing a need there is a decision on type of method to use and then decisions regarding sites and staff needs.

In this study, a number of learners felt that the Telewriter was an effective learning tool for them, others felt it needed enhancements such as video linkages. This selection of technology is very important to the institution and needs to be considered in terms of what is appropriate in terms of costs, type of courses, level of learners, availability and long range planning.

Once the delivery method(s) has been decided, then information must be provided to the prospective learners. The information provided must allow the learner choices of method and also assist the learners to decide if the courses or program is appropriate. As some learners in the study mentioned, if they had known what it was like to learn using the Telewriter, they would have looked at other options or better prepared themselves. As mentioned earlier, a number of learners studied would have liked the option to do the courses through print-based correspondence and be able to access support when required. These students seemed like they

were quite independent and wanted to take control of their learning. This development of independent learning style is also an item that the institution needs assist the learners with. It would benefit both the learner and the institution. This development may take many forms. The development needs to include instructors of courses, site personnel, technical support staff and as already mentioned the learners. In addition, instructors must become aware of the needs of the distance learners and have a good understanding of the method of delivery and a solid background in distance learning and general instruction techniques. Instructors need to have time and assistance to develop or modify courses to be used in distance education[27].

On site personnel, in the case of the Telewriter, need to understand the situations a student finds themselves in both in terms of equipment difficulties and learning difficulties. With the learners in the study, a site coordinator was available to the learners for issues involving their learning and in most cases could also help with equipment issues. The level of site support varied from site to site but from the learners in this study, they felt good site support was crucial to their learning. Technical staff need an understanding of the intricate process of learning and that the technology needs to operate very well to provide a good learning situation. Any problems delay the learning process for many learners because it not only interrupts the flow of information but also destroys the overall context of the learning, which for some students may be quite distracting. Involved in that learning context is the physical setting that the learning tasks take place in. In the case of the Telewriter, it must be free from distractions and also be comfortable to learn in. Other physical setting issues include access to: printers, fax machines, computers for e-mail, photocopiers and also help line telephones.

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[27] More discussion of implications for instructors will be dealt with in the next section.

For Distance Education Instructors

From the findings of this study a number of implications for distance education instructors can be drawn. The learners provided information on what they felt were characteristics of a quality learning experience and many of those are directly influenced by the instructor. The implications will be dealt with in a number of categories. These will include instructor awareness, instructor availability, interaction, and the actual instruction.

Instructor Awareness

Any instructor must be aware of the process the learner is going through as instruction and learning are occurring. As the study showed, it seemed that at times the learners felt that the instructor was not aware of what was happening. Learners felt that their unique needs were not being considered and therefore, they were not receiving the best possible learning experience. Learners felt that the instructor should become more aware and suggested that the instructor work from each of the sites for a period of time to become familiar with the site, as well as, the individual learners (essentially development of rapport).

Learners, besides wanting instructors to visit each site, wanted the instructor to be available at the time when students needed help. With the learners in the study, some of them had the ability to phone their instructor in the evening for assistance. Some of the learners used this access to the instructor, while others said it was the knowing it was available that helped push them forward in their learning. Having help available seemed to be an important feature for the learners in the study although some used the available help extensively and others had the security of knowing it was there. Making the help available is very important in the learning process, whether it is the site coordinator, the instructor, or some one

else. For all the learners in the study, e-mail was available to them to communicate to the instructor ands to each other. Many felt it was too inconvenient, since computer access was limited and many were slow at keyboarding. Also mentioned was the lack of being able to communicate pictures and illustrations and overall the process was time consuming.

Interaction

The issue of interaction seems to be often discussed in the context of distance education where the higher the level of interaction, the better the learning would be. This study has indicated that interaction needs to be studied by distance education instructors in terms of types of interaction, as well as, amount of interaction, since the instructors are the ones who tend to facilitate the interaction in the type of courses studied. The instructor should promote interaction in the class, as well as, outside of the class between learners in the course and also other distance learners to share their ideas and experiences with others.

Instruction

The area that the instructor has the most influence on in the learning process is the actual instruction. This is where the instructor deals directly with the learner in the courses studied, controls the Telewriter, and in the interactions going on with it. Generally, it is felt that the instructor needs to be using good instructional principles and then adapt then to the distance learning situation in response to the learners' needs and feedback, so that the learning is optimized. These principles could include the instructor choosing teaching strategies that would allow and encourage a high level of learning. They could include development of groups and teams for learning, assisting learners to experience and reflect upon their learning. In the process of instruction, learners also wanted to have feedback done

continuously both in how they were doing in this form of instruction, as well as, in the course content. For many learners, it was harder learning how to use he Telewriter than it was learning the content.

Since this form of distance education studied had many sites, keeping the involvement of all the sites is crucial. As a number of learners suggested, it was important to know the students and understand the level of interaction that they wanted. It is just as important not to call on someone too much as it is to ignore someone.

The instructor also needs to instruct in such a manner as to allow learners of different styles to be able to learn. This may mean assisting the students to learn about their learning so they can become more independent. In addition, the instructor must include in the instruction and make explicit learning strategies so the learner can be as effective as possible. This discussion looked at characteristics of quality learning experiences from the point of view of the learner who provided information that would be implication for practice for learners, institutions, and the instructors.

Recommendations for Practice

From the data collected, the literature reviewed and my personal experiences, recommendations for practice have been developed. This section will list those recommendations. The recommendations will be grouped similar to the previous section, but will be more wide ranging and be applicable to all distance education, as well as, the Telewriter. The intent of the recommendations is to create quality learning experiences. The recommendations will deal with ideas for learners, institutions, and instructors.

For Learners

The learners in any educational endeavor must strive to be better learners and become more educated consumers of education. This requires the responsibility for learning to be on the learners. The following recommendations are suggested for learners:

- Learners must gather as much information as they can about the courses and methods of delivery that they are planning to be involved in.
- Learners need to be involved actively in their learning by doing what is required to not only learn the content but to work on understanding how the information fits into their life.
- Learners need to develop strategies to become the most effective learner possible. This may be done by attending courses or asking for help from others.
- Learners must make their needs and wants known to the institutions with which they are involved.
- Learners must be aware of the resources available and use them as required.
- Learners must take the responsibility to understand how the delivery system operates and how it fits their learning style and be prepared to adapt to changing conditions.

For the Institution

The institution that provides the courses has a great effect on the learning experience of the learners. The recommendations for the institution include the following:

- The institution must provide support for learners in a variety of areas such as career counseling, personal counseling and in the case of distance education, on site support in the form of a site coordinator who is available to help learners.
- Information must be available to learners regarding all the resources that are available to help them learn.
- Institutions must develop courses with learning as the central guiding principle and then choose the method(s) of delivery, based on what fits that learning.
- Assist learners to assess themselves to decide if they are ready to take courses.
- Learning strategy courses must be provided so that learners can gain an understanding of how they learn and ways to increase their learning effectiveness.
- Choices in method of learning must be made available to learners and support for each method must be accessible.
- Institutions must provide support and training for instructors, site coordinators and support people so they can do the best possible job. This includes course development time, time to collect and reflect on feedback and time to modify courses.
- Evaluation and research must be done on each course so improvements can be included in subsequent courses.

For Instructors

In most learning situations the instructor has a great effect on the learning situation no matter whether there is face-to-face interaction or the interaction is through a medium. Recommendations for the instructor include the following:

- The instructor must be available at times convenient to the learner through a method that is easily accessible.

- Instructors should consider getting to know the learners both academically and non-academically.
- The instructor must foster interaction to the level that is comfortable for individual learners and facilitate group activities.
- The instructor should facilitate the learners becoming independent learners.
- Instructors need to use effective methods. This can be done by varying the teaching style, the method of delivery, and generally work at becoming a better instructor.
- Instructors should take courses using the method of delivery they utilyze in order to assist them to gain empathy for the learners' experiences.
- Feedback must be given to the learner as soon as possible and include specifics for improvement. The feedback should cover both course content and the learning process.

Recommendations for Further Research

In any study, it seems that a relatively small section of a topic is considered and then researched. In this case, distance education was considered and the characteristics of quality were researched from the viewpoint of the learner. Even more narrow was the Telewriter delivery method out of the many available. Since the uniqueness of the individual learners was wanted, only a small number were interviewed. The study used interviews that allowed the characteristics to be obtained from the learners. This tended to provide a snapshot of the learning situation or a brief slice of time. If each of these narrowing points were explored, there would be many areas to do further research on.

Since the learners' ideas were captured in a certain time period, more research could be done in a longitudinal fashion that looked at the learners' views

as time went on and their experiences in distance education increased. As well, if it were possible, interviewing the learners before they engaged in the distance education would provide valuable baseline to do a longitudinal study.

The learners in this study were all involved in distance education and doing reasonably well at the time of the study so would be considered successful. Accessing learners who had dropped out of their courses may provide some insight into other issues.

An exploration of other stakeholders' views on the characteristics of a quality learning experience, would be a place to put energy. These others would include site coordinators, instructors, and administrators as well as, possibly course designers and instructional technologists. This would provide rich data for comparison for different viewpoints.

Learners, using other types of delivery, could be researched that would assist researchers in finding out if there is differences between methods of delivery, in addition to, areas that are unique to certain delivery methods. Within each of these, action research would also be a possibility where cycles of change based and research would make a dynamic and very timely process.

A suggestion that came from one of the learners in the study, was to do the same study but focusing on a course in the classroom and also taking other forms of delivery such as print based correspondence. Here again, one could look for differences and similarities based on one person across a number of learning situations.

Further research could consider greater use of the various research methods used in this study, particularly the use of small group interview to generate brainstorming among the participants to allow them to build on others' ideas and go beyond their own experiences. It may be possible to take cross sections of

students from different delivery methods or same method of delivery at different levels such as upgrading, post secondary and high school.

In some the interviews done in the study, critical incidents were used to find when and why learners felt certain things. This methodology could be explored to find when a student decided to continue in a course or to drop out.

Other areas that need more research follow directly from the study. Areas such as why certain students feel unwilling to ask questions in a Telewriter session while others tend to spend an inordinate amount of time in discussion? Why do some learners use the site coordinator extensively while others do not? The same question could be asked about other support services. What would be a good preparation for learners that were contemplating doing courses on the Telewriter? What information would be applicable for learners to know before deciding to take a course by distance education and, of course are there a set of predictors of success in distance education?

This study, although giving some valuable information, also creates a need to do more research in various aspects of the learning experience. In each of the suggestions made, there is an implicit need to keep the learner at the center of the research since their success is the success of distance education.

Personal Reflections

As I near completion of this research, I would like to reflect upon the experience. A number of points come to mind in thinking back through the research, as well as, when I flip through my field notes. My reflections will be roughly chronological since it hard to remember exactly when an idea came clear. It seems the thinking during the research project was a cyclical process where ideas surfaced and then resurfaced later to be reconsidered.

This study, being part of a larger process of education, allowed me to put a number of ideas I had learned in various courses at the University of Alberta into practice. During my course work, I became acquainted with the idea of qualitative research and felt that would be an appropriate methodology. While taking courses, I was also teaching adults at Alberta Vocational College - Edmonton in Academic Upgrading and working with Learning Disabled students having learning difficulties. During this time, I had the opportunity to instruct courses to a number of regional sites using the Telewriter and so the connection between the research and the Telewriter was developed. The research idea developed into considering learner identified characteristics of quality learning experiences which was a strong area of interest and there seemed to be little literature in that area.

The actual research gave me a chance to spend time with Telewriter students discussing questions I had while I was instructing. The learners were more than willing to share their thoughts and ideas regarding learning through distance education. All of the learners appreciated the ability to participate and have their ideas and comments recorded and listened to. Many of the students suggested that this type of research should be done in each course they were taking. This feedback felt good, since I tend to obtain feedback throughout my courses anyway. However, the feedback I usually get tends to be relatively brief except for a final evaluation, which the learners said is good but too late to make changes for them. Suggestions such as doing in-depth feedback throughout the course have changed some of my other instructing practices, such as currently in my courses, I do weekly feedback and make changes accordingly. I have even now started to do feedback sessions at quarter points in the workshops and presentations that I do.

Other practices I have modified due to my involvement with the research is to continuously think about how what I am teaching would be for various learning

styles and how can I make it better. Since I have been previously working with Learning Disabled students, it was something I did for them but now have incorporated into my everyday lessons.

For me process of the research moved from the quiet time of doing the literature review and developing the questionnaire and the interview questions, to the active interviewing process, back to the quiet process of transcription and analysis, to the active process of the small group interviews, to the quietness of the analysis and the write-up of the study. In each of the stages many ideas came forth that were recorded in the field notes and revisited a number of times. I found times where I saw no progress and other times when I could hardly wait to get on the phone with the learners to ask them a certain crucial question, an explanation of something or a validation of my interpretation of some idea.

Distance learning in many of its definitions suggests that learners are more responsible for their learning than in the classroom setting. I can say that doing this research has allowed me to be more responsible for my learning than ever before. I was able to be responsible for the timelines and how the research was set up and this assisted me in feeling that I was in control of my learning process.

The learners in the study suggested that the act of answering my questions helped them to discover ideas about their learning and that they will continue thinking about their learning. For me, the research has given me an opportunity to explore a number of areas of interest and also move forward and look into other areas. I now use the four goals of the Alberta's Adult Learning System as evaluation points when considering programs I am involved with. These four goals are:

- accessibility - Does it increase access to quality learning opportunities?

- cost-effectiveness - Is the learning opportunities delivered at a reasonable cost?

- accountability - Is it accountable to the learners and the funder?

- responsiveness - Is it responsiveness to the needs of the individual learner and others and is the feedback being asked for continuously? (p. 7)

Before this research, I had only one subject I would continue to talk about which was how great my children are. Now I have a second topic, which is, what I learned from the Telewriter learners and what I am going to explore next.

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Appendix

A. Letter of Introduction

Dear Telewriter Student:

Welcome back to learning for another year. This letter is to introduce a study, which I would appreciate that you become involved in. The purpose of the study is to find out what you think would make a good distance education course.

I am a graduate student at the University of Alberta, as well as, an instructor at Alberta Vocational College-Edmonton. This study is part of my Master of Education program at the University of Alberta and is supported by Alberta Vocational College - Edmonton.

To help me understand how you feel about distance education, I plan to interview a number of Telewriter students. Enclosed in this package is a "Learner Profile" (form A) questionnaire that asks some basic questions about your background and experience and will be used by me to select participants for the study. If you are interested in being involved in the study please fill out the "Learner Profile" (form A) and "Participant Agreement" (form B) and return them to me. All of the information, which you give, will be anonymous and confidential. Please note your participation is voluntary and you can opt out at any time.

Once I receive your Learner Profile (A) and Participant Agreement (B) form, I will be calling you to discuss the project further. Your involvement in this study will consist of about two hours of time early in the term, so it will not conflict with your courses. The first hour will be an individual interview (possibly by phone). The second hour will be a group interview. Both of these interviews will be at times that are convenient for you.

I look forward to having you involved in this study, so please fill in the Participation Agreement (A) and Learner Profile (B) and return them to me either by fax or by AVC mail in the envelope provided. If you have any questions or concerns regarding this study or your part in it, please to do not hesitate to discuss them with me. Thank you in advance for your help.

Sincerely,

Roger Moore
Graduate Student
University of Alberta

Phone: 437 - 0823 (Home)
427 - 6954 (Work)
Fax: 422 - 3802

B. Participant Agreement

(Form A)

This study is being done by me (Roger Moore) as part of my Master of Education at the University of Alberta and is supported by Alberta Vocational College-Edmonton. The purpose of the study is to understand learner identified characteristics of quality learning experiences in distance education. The information will be obtained through a personal interview with you (of approximately one hour) and one group interview (of approximately one hour) with students taking Telewriter courses with Alberta Vocational College - Edmonton.

Names of participants will not be reported and the information obtained in the study will be anonymous. The names of individuals obtained in the interviews will not be repeated in the written report. Participation in the study is voluntary, and participants can withdraw at any time. If you have any questions or concerns at anytime please contact me Roger Moore at 437 - 0823 (home) or 427 -6954 (work) at AVC Edmonton. If you are willing to participate in this study, please sign this form and return it to me. Thank you in advance for your help.

Name: _____
(Please Print)

Address: _____

Town/City: _____

Postal Code: _____

Signed: _____

Dated: _____

C. Learner Profile Questionnaire

(Form B) If you are interested in participating in this study, please complete this Learner Profile. Names of participants will not be reported. Participation is voluntary and you can withdraw at any time.

1. What courses are you presently enrolled in at Alberta Vocational College?

Time/block	Course	Telewriter or classroom
Example: Blk 2	*Chem. 20*	*Telewriter*

2. How many courses have you done previously by distance education? _____
   How were they done? _____
3. How many courses have you completed at AVC to date? _____
4. What is your educational goal? _____
5. Are you:
   Single/divorced/separated - no dependents _____
   Single/divorced/separated - with dependents _____
   Common law/married no children _____
   Common law/married with children _____

6. What age group do you fit into?
   under 25 years _____
   26 - 30 _____
   31 - 35 _____
   36 - 40 _____
   41 - 45 _____
   over 45 years _____

7. Gender:
   Female _____
   Male _____

Thank you for taking the time to complete this Learner Profile. I will be phoning you to set up convenient interview times, so please give a regional site phone number and if possible your home number. Also please list the times you would be available to be contacted. Please return this in the enclosed envelope as soon as possible.
All your information will be kept confidential. Thank you.

Name: _____ AVC-E Regional site you are at: _____
Regional phone number and times: _____
Home phone number and available times: _____

D. Individual Interview

Individual Interview

Date: _____ Name: _____

Time: _____ Number of Interview: _____

Learner Identified Characteristics of Quality Learning Experiences in Distance Education

Introduction

The purpose of the interview is to get a better understanding of how you feel about your learning experiences in distance education. Since you have been involved in distance education in this case using the Telewriter, you will be able to explain your experiences. Therefore this interview will deal with your background, experiences and thoughts on use of distance learning namely the Telewriter.

What you say will be combined with other students' responses and put into a written format. What you say will not be identified to you personally. As we go through the interview, if you have any questions about why or what I'm asking please feel free to ask. The interview will be tape-recorded. You can stop the tape anytime during the interview. What you say will be written out and sent to you to review and provide comments on. This helps me make sure that what you say is what I record. Your reviewing of the write-up is, of the interview is an important part of this study.

The purpose of the overall study is to get your thoughts and ideas about distance education. Please be as open and frank as possible. Your ideas, opinions, feelings and perceptions are important to this study.

The interview will be in three sections, the first section will ask about your background, the second section will deal with your distance learning experience and the third will be your opinions of your experiences.

A. Background - Learner Profile: (Appendix D continued)

In terms of your background, I would like to learn more about you and will consider:

1. Your situation before you entered AVC-E
2. Your present situation while at AVC- E
3. Your plans for the future.

A1. Your situation before you entered AVC-E

Could you tell me about yourself before you became involved in AVC-E?

Probes: Previous education Level Attained Where & when
Reason left school Work experience Learning involved in
Reasons for returning to school

Why did you choose AVC-E Regional Programs in _____?

A2. Your present situation while at AVC- E

Now that you are At AVC-E, What is your situation (use questionnaire to check)?
Classes, number times and method of delivery
Are you working at a paying job?
Dependents, with you, ages
How did you chose DL
First term here at AVC or more than one
Funding SFB, grant, WCB self, AVT/Career Development, other

A3. Your plans for the future

Now I would like to ask your plans for the future
What is your career goal, educational goal, courses needed?
Where will you go for that?
How long will it take to obtain your preferred occupation?
In the courses you are taking now, how do you expect to do?
-in classroom -on Telewriter

B. Learning Experiences in Distance Learning

Now I would like you to think about the course(s) you have taken in DE or are taking here at AVC-E.

B1. Have you completed a distance education course YES or No (If no go to 2.)

How did you feel when you completed a course

B2. What course(s) are you taking and how have they gone (going)?
Explain how the course operates
What orientation did you receive?
What support is available?
What sort of interactions do you have with AVCwho when how often,
In your course what sort of feedback have you received?

What helped you learn best?
What could have been added to help you learn better?

B3. How are you being affected by the DE experience?
How has your learning changed as a result?
How do you learn best?
What have you learned about yourself?
How responsible do you feel you are for your learning?

C. Evaluation/Opinions of Learning Experiences
C1. Could you discuss an experience or situation with the Telewriter in which you felt you really learned

C2. What about a situation in DE that was particularly negative?
What hampered your learning?
Frustrated your learning

C3. Let me ask you about your feelings
How do you feel about doing DL?

C4. What things are of greatest importance or of value to you in the distance education learning experience?

C5. If you had the power, what would you change in DL so that you could have the ideal or best possible educational experience using the Telewriter?

Any thing else you would like to add to this interview

As I said earlier it is being recorded and the written copy will be faxed to you shortly. Please review it for accuracy and make any comments or changes and fax it back to me. When the material is received, I will set up the group interviews. Remember at any time you can opt out of this study. If you have any questions please call me and thank you again.

E. Small Group Interview

Focus group questions
Introduction

Explaining the process of teleconference - informal, jump in at any time

How people were connected

Similar to Telewriter

You have all learned something in the courses both in content and about your learning in a distance education course.

Have the right to opt out at any time.

1. What advice would you give to others who are planning to take a course using the Telewriter? If asked what would you say to them?
2. What did you do the help you to learn better?
3. When was a time that you felt you really learnt?
4. What was of greatest value to you?
5. To make it of better quality?

Probes: and ideas from others
Instructor to sites each week
More labs
Site coordinator or EA at site support
Bigger Room
Separate Telewriters
Ear phones
Video Support
More pictures
Notes given out
Hands on

F. Transcription Validation Letter

November 01, 1996

Dear _____:

I appreciate the time you took to talk to me about your experiences with distance learning. As I mentioned during the interview, I am sending a transcript for your review. You should note this is a transcript of a conversation so it may not look or sound the same as a piece of written material. Could you please make any changes, comments, feedback or additions. Please don't be worried about the grammar or sentence structure because any information used will be corrected.

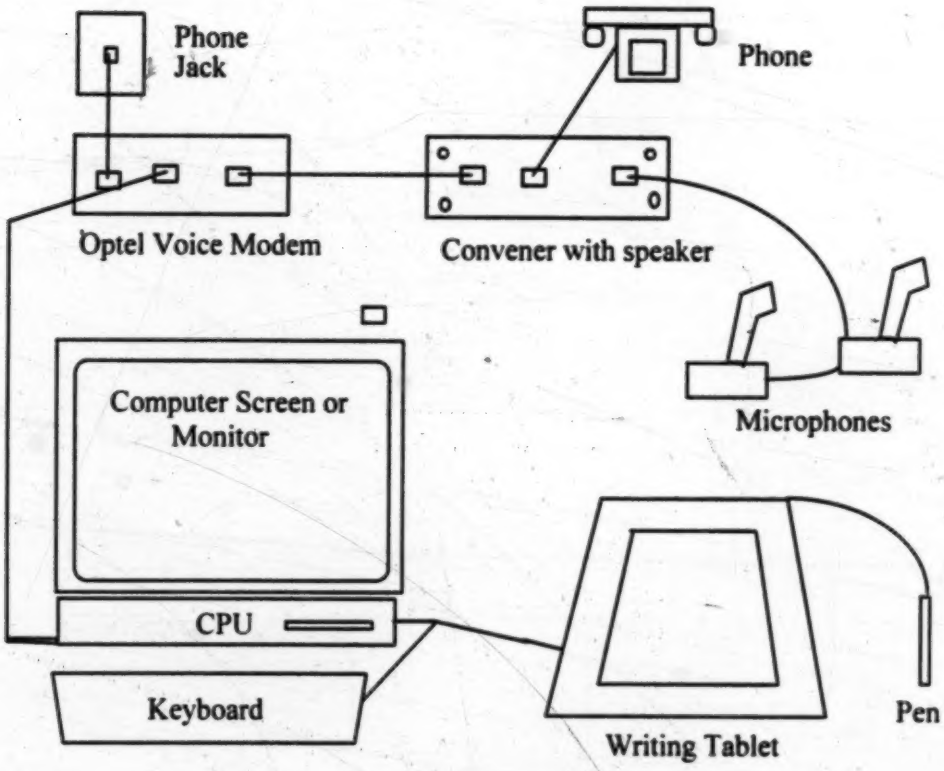
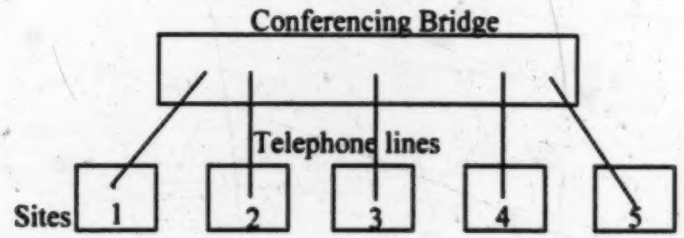
Your validation of the transcribed interview is both a welcome and necessary part of the research process. It helps me ensure the reliability of the study findings. If after two weeks, I do not hear from you, I will assume the transcripts is representative of our conversation. I will be calling you soon to set up the group interview. If you have any questions or concerns, please give me a call at 437 - 0823 (home) or 427 - 6954 (work).

I appreciate the time and energy you have given to assist me with my study. Thank you again for your help.

Sincerely,

Roger Moore

G. Telewriter Hookup



Conferencing Bridge Hook Up